

Community Policing in Madison: Quality From the Inside Out

An Evaluation of
Implementation and Impact

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I. PROJECT OVERVIEW

This report is the evaluation of the effort by the Madison, Wisconsin Police Department to create a new organizational design (structural and managerial) to support community-oriented and problem-oriented policing.

The ultimate goal of the Madison Department is better, more responsive service to the community. The plan for accomplishing this goal is a sequential one in which internal organizational changes are believed to be necessary before the external goal of improved service can be accomplished. One Madison manager summarized the theory by writing, "...if we are to try new ideas, we need to first develop a supportive leadership style; otherwise, it's analogous to planting a seed with tremendous potential in an unprepared surface, expecting it to grow. Growth will be short-lived but eventually community policing will not survive." (Masterson, 1992)

This report, then, is the study of an effort to bring about change in policing from "the inside, out." Internal changes would be followed by external changes.

One-sixth of the organization serving approximately one-sixth of the community was used as a test site or prototype for the new approach. This site, the Experimental Police District (EPD), was charged with implementing "Quality Policing," the concept which, in Madison, encompasses community-oriented policing, problem-oriented policing, and employee-oriented management. The first objective was the implementation of three conditions that the Madison Department considered to be critical pre-conditions for improved service delivery; these were:

1. Quality Leadership;
2. a healthy workplace; and
3. physical decentralization.

With a grant from the National Institute of Justice, the Police Foundation was to determine:

1. whether these pre-conditions were accomplished, and
2. if they were, whether they were related to improved perceptions of service delivery on the part of citizens.

Over a three year period developments in the Experimental Police District were monitored. Madison police officers were surveyed before, one year after, and two years after the creation of the EPD. Attitude changes for officers working in the EPD were compared to those of officers working in the rest of the organization. A random sample of Madison residents was surveyed before and two years after the EPD opened. The attitude changes for residents served by the EPD were compared to those for residents in the rest of the City.

After an implementation period of two years, it was determined that: a new, participatory management approach was successfully implemented in the EPD; employee attitudes toward the organization and toward their work improved; and physical decentralization was accomplished. These changes were associated with a reduction in citizens' perceptions that crime was a problem in their neighborhood and an increase in the belief that police were working on problems of importance to people in the neighborhood.

II. COMMUNITY POLICING IN MADISON

Improved police service is the constant goal of what is intended to be an evolving process of learning and change in the Madison Police Department. At this point, Madison personnel believe improvement should take the form of community policing, a general concept that stresses a closer working relationship between police and the citizens they serve. In Madison, the umbrella of community policing is used to cover a variety of means of learning about and responding to the needs of the Department's citizen "customers." The commitment to constant improvement suggests that one day the Department may work to implement other approaches to police service, but the assumption is that those will evolve out of current efforts to develop a community orientation to police service.

Madison's interest in community policing currently is shared by large numbers of police organizations. Operational definitions may differ, but the underlying theme is a closer, two-way relationship between police and their communities. This community orientation is emerging from the police practice and literature of the past twenty-five years. In 1967 the President's Commission on Law Enforcement and the Administration of Justice advocated more frequent, informal contact between police and the public. Commission recommendations were reflected in team policing projects conducted in the 1970s (Sherman, Milton and Kelly, 1973; Schwartz and Clarren, 1976) and in the San Diego Community Profiling Project¹ (Boydston and Sherry, 1975). In England, Cain (1973) and Alderson (1977) were calling attention to the value of close contact between police and citizens—an idea that was losing currency as the British police "modernized." In the States, police chiefs Frank Dyson (1971), Lee Brown (1985), Ray Davis (1985), Neil Behan (1986) and Bill Hegarty, among others, became articulate spokesmen for the idea that police should be knowledgeable of, and responsive to, the needs of all segments of the community.

While crime prevention and community relations were considered functions important enough to merit special units in many departments, research in the 1960s and 1970s (summarized in Wycoff, 1982) demonstrated that the vast majority of service requests received from the public—calls that were handled by non-specialist patrol officers—had nothing to do with "crime fighting." Rather, 19 to 55 percent of all calls

¹ This Police Foundation report contains one of the earliest references to community oriented policing, including what may be the first public commitment of a police organization to implement community policing on a city-wide basis.

concerned order maintenance and service needs. Yet, in the 1970s, the function of crime fighting was practically synonymous with concepts of policing. In 1982, Wilson and Kelling made the argument that order maintenance policing is critical to the survival of troubled urban areas, and the Fear Reduction studies (Pate, Wycoff, Skogan and Sherman, 1986) funded by the National Institute of Justice demonstrated that police could use a number of different approaches to break into the fear cycle about which Wilson and Kelling had written. In addition to the fear reduction strategies tested in Houston and Newark, other research suggested that foot patrol also could be an effective means of increasing police-citizen contact and improving citizen attitudes (Police Foundation, 1981; Trojanowicz, 1982; Hornick, et. al, 1989).

By 1986 Skolnick and Bayley were noting the growing popularity of such strategies in a number of departments around the country and Goldstein (1987) had begun to conceptualize the issues that fall under the broad umbrella of "community-oriented policing." These works are part of the rapidly growing body of literature that emphasizes the importance of knowing needs and preferences of "customers" (citizens) and the need to involve these customers in decisions about which services are to be delivered and how they are to be delivered. (See, for example, Alderson, 1977; Brown, 1985; Davis, 1985; Weatheritt, 1986; Braiden, 1987; Goldstein, 1987 and 1990; Bayley, 1988; Green and Taylor, 1988; Kelling and Moore, 1988; Mastrofski, 1988; Skolnick and Bayley, 1988; Wycoff, 1988; Alpert and Dunham, 1989; McElroy, Cosgrove and Sadd, 1989; Skogan, 1990; Sparrow, Moore and Kennedy, 1990; Trojanowicz, 1990; Trojanowicz and Bucqueroux, 1990; Wadman and Olson, 1990 and many others.)

In Madison, community policing concepts are inextricably bound with the Department's philosophy of "Quality Policing" which emphasizes quality of service delivery; quality of life in the community; quality of life in the workplace; the Quality Productivity/Quality Leadership processes advocated by Edwards Deming; and "Quality Improvement," the organization's commitment to continual improvement.

Since 1987 the Madison Department has believed three conditions to be necessary for the development of "Quality Policing." The first is the implementation of a new management approach that supports employee participation in organizational decisions. The management philosophy is known as "Quality Leadership," an approach that emphasizes the role of managers as facilitators whose job it is to improve systems, involve employees in decision-making, employ data-based problem-solving

approaches, promote team work, encourage risk-taking and creativity, and give and receive feedback from employees.

The second necessary condition is a healthy work environment for employees. In Madison, this means treating employees as "internal customers" whose problems should be identified and resolved. Quality Leadership is the means of creating the healthy workplace.

Physical decentralization is believed to be the third necessary condition. A small workgroup (the consequence of decentralization) is considered essential for improving conditions in the workplace. At the same time, closer physical proximity to citizens is crucial to knowing citizens and being aware of their problems.

The relationship of these three conditions to the goal of Quality Policing is reflected in the motto of the Madison Department:

**CLOSER TO THE PEOPLE:
QUALITY FROM THE INSIDE, OUT**

It is expanded in the Department's mission statement:

MISSION STATEMENT

We believe in the DIGNITY and WORTH of ALL PEOPLE.

We are committed to:

- PROVIDING HIGH-QUALITY, COMMUNITY-ORIENTED POLICE SERVICES WITH SENSITIVITY;
- PROTECTING CONSTITUTIONAL RIGHTS;
- PROBLEM SOLVING;
- TEAMWORK;
- OPENNESS;
- PLANNING FOR THE FUTURE;
- PROVIDING LEADERSHIP TO THE POLICE PROFESSION.

We are proud of the DIVERSITY of our work force which permits us to GROW and which RESPECTS each of us as individuals, and we strive for a HEALTHFUL work place.

In 1987 the Madison Police Department believed it had to first change itself before it could change the quality of its service delivery.

The relationship between the internal changes and the goal of better service to the community is outlined in Exhibit 2-1, and is discussed below.

A. The Change Process

The process of change referred to in the model (Exhibit 2-1) is identified for the purposes of this research project as the one that began to take shape in the Madison Department in the 1980s with the deliberate and increasing involvement of employees in the organization's decision processes. In 1984 then-Chief David Couper established the Committee on the Future of the Department, the members of which were broadly representative of the organization. In 1985 the Committee released a report that made three major recommendations for the future of the organization:

- (1) Get closer to the people we serve.
- (2) Make better use of available technology.
- (3) Develop and improve health and wellness in the workplace.

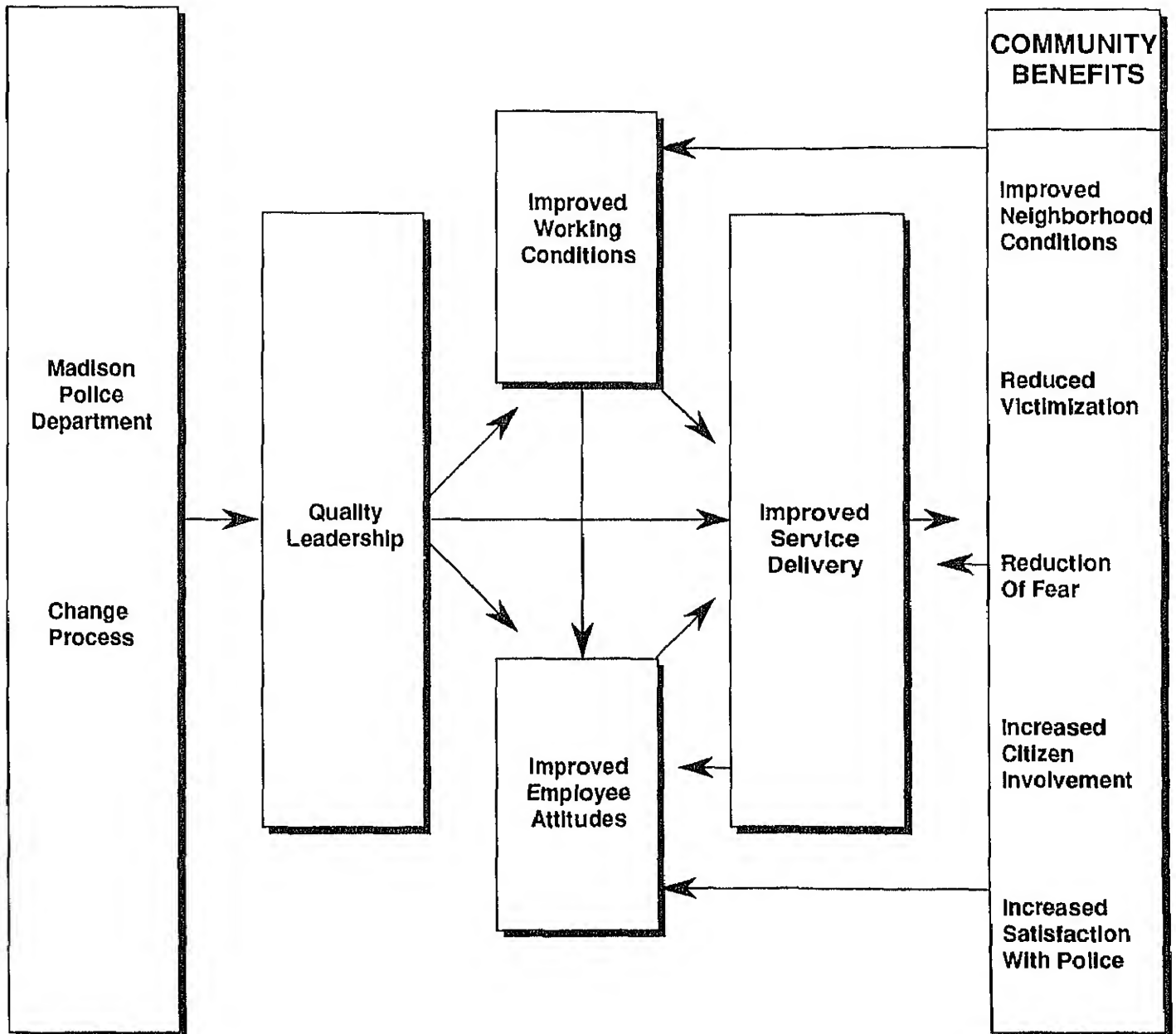
With a great deal of employee input since that time, the Department has been refining and reshaping those basic goals and working toward their implementation. This process became more sharply focused with the introduction in 1985 of the concepts of Quality/Productivity to the City by then-Mayor Joseph Sensenbrenner. A four day workshop conducted by Edwards Deming, the leader of the Quality movement in this country, was followed by two weeks of training in Quality/Productivity principles and procedures for selected City employees.

B. Quality Leadership

Following participation in the Quality/Productivity training, the Department articulated the management philosophy of Quality Leadership, the twelve basic principles of which are drawn from the works of Deming (1986), Peters and Waterman (1982), Peters and Austin (1985), Naisbitt and Aberdene (1985) and others. These principles, listed in Chapter IV, emphasize teamwork for planning, goal setting and operations, data-based problem-solving, a customer orientation, employee input in decisions, respect and trust among employees, improvement of systems and processes, organizational policies developed to support productive employees, encouragement for creativity and risk taking, tolerance for mistakes,

EXHIBIT 2-1

GOALS OF THE MADISON CHANGE PROCESS



and the manager as coach and facilitator rather than commander. Quality Leadership became the managerial linchpin for a number of ideas that had been evolving and coalescing in the department for several years. With its emphasis on employee input it became, in part, both the end and the means to the organizational goal of a healthier workplace. It is both the means of giving employees "ownership of the house" (Braiden, 1991) and a means of making the best use of all available ideas and information in the organization. The emphasis on managers seeking input from employees parallels the emphasis in community policing on officers seeking input from citizens. As stated at the start of this report, Madison Police Department managers believe Quality Leadership is a necessary antecedent of community policing; if managers do not use input from employees for decision-making, officers cannot be expected to think about using input from citizens for making decisions about the work to be done.

C. The Healthy Workplace

In the model the "healthy workplace" is represented in Exhibit 2-1 by the boxes for "Improved Working Conditions" and "Improved Employee Attitudes." Better conditions and better attitudes are hypothesized to be causally linked and together produce the healthier environment. Improved working conditions could include anything that employees felt needed to be changed in the workplace. This is where Quality Leadership becomes both a means and an end. In Madison, with its high percentage of college graduate employees, input into decision-making was one of the top concerns (just after improvement of the promotional process) of MPD employees in 1986. Letting bright, educated people exercise their brains is one way of improving their work environment (Lawler, 1984; Braiden, 1991). But it is the practice of Quality Leadership with its emphasis on listening to employees that makes it possible to know the concerns of employees.

Employee attitudes of interest include job satisfaction, attitudes toward the role, toward the self in relationship to the role, and toward the community. Job satisfaction, for example was expected to be increased by Quality Leadership. Job satisfaction is a multifaceted concept consisting of both intrinsic and extrinsic components (Kunin, 1955; Dunnette, Campbell, and Hakel, 1966; Weiss, Davis, England and Lofquist, 1967; Smith, Kendall and Hulin, 1969; Dunham and Herman, 1976, Smith, 1976). It was expected that Quality Leadership would affect primarily the intrinsic elements of job satisfaction—those associated with the doing of the work (liking for the work, satisfaction with supervisors, satisfaction with co-workers, etc.) rather than those associated with social and material rewards resulting from work (e.g., salary, status, pension, job security). It is the intrinsic elements that should be affected by participative management. The Quality Leadership approach is intended to encourage creativity and

risk-taking and should challenge officers to develop and experiment with their own ideas about policing. This should increase their belief that their MPD job is one in which they can experience personal growth. It was anticipated that Quality Leadership would give employees a sense of ownership of their work with subsequent satisfaction and increased commitment to the job. It also was expected that employee participation in the planning process would increase tolerance for, or receptivity to, change (Coch and French, 1948; Watson, 1966; Hersey and Blanchard, 1972; Kanter, 1983; Dunham, 1987).

D. Improved Service Delivery

"Improved Service Delivery" is the umbrella label for the implementation of three approaches to service delivery:

- (1) Quality/Productivity as propounded by Deming(1986),
- (2) Community policing, and
- (3) Problem-oriented policing as first proposed by Goldstein (1979, 1990) and discussed in Eck and Spelman (1987).

The Quality/Productivity management philosophy emphasizes the importance of knowing the needs and preferences of the customer, the analysis of systems to improve processes and products, the involvement of employees in decisions about how to improve systems, and the use of quantitative data for organizational decision-making.

Community policing, the second major component of improved service delivery, has been discussed above.

At the same time the idea of a close working relationship between the police and the community was gaining popularity and being tested, so was the concept of problem-oriented policing, first advocated by Herman Goldstein in 1979 and tested by him and the Madison Police Department (Goldstein and Susmilch, 1982). The idea was further developed and tested in Newport News, Virginia (Eck and Spelman, 1987) and Oakland, California (Toch and Grant, 1991). The central idea of problem-oriented policing is that underlying many of the individual calls (incidents) to which police respond are more general problems which, in order to be resolved, require a different type of response than do the incidents which are indicative of the problems. Problem solution requires analysis of the incidents by persons knowledgeable of the context in which they are occurring, followed by creative brain-storming about and experimentation with possible responses. While problem-oriented policing theoretically can

be conducted in the absence of community-oriented policing (although its proponents do not suggest that it should be), it is one excellent method of achieving the goals of community-oriented policing. It can be argued that a patrol officer closely familiar with his or her neighborhood can make an essential contribution to the analysis of the nature of the incidents/problems occurring there.

Improved service delivery was expected to result from better working conditions (e.g., better technology and information systems, the ability to adjust schedules for problem-solving, and the freedom to try new approaches to problems). It was also expected to result from the anticipated improvement in employee attitudes. It was believed that officers who were more involved and more satisfied would do more effective work. There is evidence (Davis and Cherns, 1975; Hackman and Suttle, 1977; Lawler, 1984) that organizations that encourage participation of employees tend to experience lower turnover, tardiness and absenteeism; lower material and labor costs; and higher quality work performance. It was anticipated that Quality Leadership would have a direct, as well as indirect, effect on the quality of service delivery through its emphasis on listening to the customer and seeking to satisfy customer needs. Managers as well as other employees would more directly seek information from the citizen customers about problems of concern to them and, therefore, should be better able to direct organizational resources to those problems.

It was expected that improved service delivery would have a reciprocal effect on employee attitudes; the ability to see a job more effectively done through problem-solving policing would increase job satisfaction and the sense of efficacy in the role.

E. Community Benefits

Benefits to the community or the external customers are the ultimate goal (both causally and temporally) in the model. It was expected that improved service delivery would lead directly to improved neighborhood or community conditions, reduced crime victimization, reduced fear and worry, increased involvement of citizens in problem-solving, and increased satisfaction with police. It was also expected that the community benefits would work in a feedback relationship with employee attitudes; as citizens became more appreciative of better service, officers would develop more positive attitudes toward citizens and the job. The more involved officers became in community policing and problem-solving, the more likely they would be to interact with satisfied citizens.

F. The Model in Context

This kind of model, with its implied causality, suggests an almost automatic effect of one element of the model on another. However, even if a more satisfied employee working in a better environment is inclined to work harder or better, the model gives no assurance about the substance or direction of those improved service delivery efforts. When an organization is attempting to adopt a new approach to service delivery, as Madison was in moving toward community-oriented and problem-oriented policing, what is the guarantee that the more highly satisfied employee will become enthusiastically committed to the new approach rather than re-energized toward the familiar one?

Unspecified in Exhibit 2-1 is the context in which the model was developed. The employees for whom the model was expected to be most immediately relevant were those who would work in the new Experimental Police District where the chances for fostering Quality Leadership, improved working conditions and improved employee attitudes were expected to be very good. The model evolved from the work of the EPD planning team which also designed the orientation and training that would prepare the new EPD officers for their assignment. Training included discussions of ways of getting closer to the community, instruction in the use of data for decision-making and instruction in the problem-solving approach. Additionally, it was anticipated that the management team at the EPD would reinforce the community and problem orientations through group discussion, planning, goal setting, facilitation of problem-solving activities and additional training. The arrow from the "Improved Employee Attitudes" box to the "Improved Service Delivery" box was not left unguided; the path was to be influenced by management and a new service delivery philosophy. These, of course, would be in competition with old work habits.

III. EVALUATION DESIGN AND METHODOLOGY

Research design and methods are discussed separately for each research objective.

A. Objective One: Document the Process of Developing the Experimental Police District

Beginning in mid-1987 and continuing through 1990, the Evaluation Project Director monitored the implementation process through review of documents produced during the EPD planning process, through on-going review of memos and other documents produced by the Department and the EPD, direct observation of the EPD through site visits, regular review of newspaper articles, frequent telephone contact with EPD managers, occasional rides and interviews with EPD and Non-EPD officers, and frequent conversations with two University of Wisconsin faculty members who are regular observers of the relationship between the Department and the community.

Three annual administrations of the police personnel survey provided opportunity for numerous informal conversations with personnel throughout the organization concerning their perceptions of the change process.

During the summer of 1988 and again in the summer of 1990, the Project Director, assisted by Dr. George Kelling, conducted lengthy interviews with all members of the Department's management team. Additionally, in August of 1990 they conducted interviews with fourteen lieutenants and eight detectives.

B. Objective Two: Measure the Internal Effects of Change

It was expected that successful implementation of Quality Leadership and the orientation of the Department to community- and problem-oriented policing would have an impact on personnel that would be reflected in their attitudes toward:

- the organization, management and supervision;
- the nature of the police role;
- the role of the community in policing.

It was further expected that change in employee attitudes during the evaluation period would occur primarily in the Experimental Police District. The design for testing this assumption was a quasi-experimental one in which changes in attitudes of EPD employees would be compared over time with attitude changes of employees in the rest of the Department. Exposure to the impacts of the changes in the EPD was to be controlled by analyzing changes for employees who had been in the EPD for the entire evaluation period of two years in comparison to those of employees who were never in the EPD during this period.

The conditions of a true experiment did not exist since the program site (the service area of the Experimental Police District) was not randomly selected but was selected by the Department, based on a number of indicators of need. Officers were not randomly assigned to work in the EPD but were allowed to bid for assignment there just as they annually bid for other assignments. The low seniority of some officers meant that they had no choice but to accept EPD assignment. Low seniority further meant that younger officers were assigned to the night shift. The employee union agreed there would be no changes in personnel during the originally planned one year of the evaluation period. When the time frame for the evaluation was later extended by several months, there was some movement in and out of the EPD with the result that the size of the analysis panel was reduced.

B.1. Personnel Survey

Employee attitudes were measured by the administration of a written survey to all commissioned personnel three times during the evaluation period:

- (1) December, 1987, prior to the opening of the Experimental Police District;
- (2) one year later in December, 1988; and
- (3) again in December, 1989.

Surveys were administered by the Project Director to small groups of personnel during normal working hours. At each administration the purpose of the survey was explained; officers were assured of the confidential nature of the data and told how the identity of respondents would be protected; and they were told that participation was voluntary.

Despite the fact that most of the analysis was to be based on the panel, an effort was made to survey all commissioned personnel during each survey administration period. It was anticipated that the full survey

would have additional research value for the Department as well as other research organizations. Although the immediate interest is in comparing attitudes of EPD officers in the panel with Non-EPD officers in the panel, the full survey of all commissioned personnel allows for developing a picture of the entire organization over time. Since the ultimate goal of the Department is change across the entire organization, the ability to monitor changes for the organization as a whole, as well as within organizational groups, will be important.

B.2. Survey Participation Rates²

In 1987, 97 percent (N=270) of the total commissioned personnel (N=278) in the Department participated in the employee survey; 97 percent (N=268) participated in 1988 and 86 percent (N=239) participated in 1989.

B.3. Panel Participation Rate

Of the 270 respondents to the Time 1 survey, 14 had left the Department by the time of the third survey. Two hundred and two persons participated in all three survey waves; thus the participation rate for the panel is $202/256 = 79$ percent.

The panel was further defined by assignment; to be part of the panel for the purpose of analysis, the respondent had to have been in the EPD for all of the two years that constituted the evaluation period or not in the EPD for that entire period. Persons who moved into or out of the EPD after the first survey administration were not included in the analysis panel. The result is an analysis panel of 169 respondents, 25 of whom were in the EPD for the entire evaluation period and 144 of whom were never in the EPD during that same period.

The panel is equivalent to 61 percent of the total sworn personnel at any one of the three survey times. The tables in Chapter V include data for the EPD and the Non-EPD panels and also for cross-sections of the EPD and Non-EPD parts of the organization. Presentation of the cross-sectional data provides both an overview of the organization over time and

² This section discusses participation rates rather than response rates because the latter suggests the actual completion of a survey. At each survey period there were a very few individuals who came to the survey site and completed a survey identification form but did not actually complete the survey.

a means of determining the extent to which the panels are representative of the parts of the organization from which they are drawn. In fact, in almost every analysis, the panel data are highly similar to the corresponding cross-sectional data.

B.4. Analysis of Personnel Survey Data

Originally it was anticipated that measurement of change would rely almost entirely on regression analysis that would test for significant changes between EPD and Non-EPD officers, controlling for a number of background characteristics. It became clear—first from observations of the Department and later from data analysis—that change was occurring throughout the Department. Regression analysis often resulted in statistically insignificant differences between the EPD and the rest of the Department while masking magnitudes and patterns of change occurring across the organization. Subsequently, it was decided to conduct and present within-group analyses so that it would be apparent whether statistically significant change occurred among EPD officers and among Non-EPD officers. These data give the reader a feel for the magnitude, direction, and pattern of changes that were occurring. Additionally, regression analyses were conducted in which group assignment (EPD or Non-EPD) is the independent variable and the pre-test score is controlled. These regression analyses provide the most stringent measures of program effect. All of these analyses are presented in detail in the technical report (Wycoff and Skogan, 1993), and are summarized in this document.

To facilitate both analysis and the presentation of data, comparisons are made for only two survey periods—usually Time 1 (1987) and Time 3 (1989)—unless the analysis is of items that were added to the second survey, in which case the comparison is of Time 2 and Time 3 data. The decision to simplify data analysis and presentation by using only two waves of data was made after multivariate analysis determined there was a linear relationship across the three waves. The Madison project was not one in which measurable change occurred in the first year, only to be eroded during the second. Change was steady and continuing.

C. **Objective Three: Measure the Effects of Change on the Community**

C.1. Citizen Survey

It was expected that residents of Madison who were served by EPD officers would, over time, interact more frequently with police, perceive that they were receiving better service and believe that police were addressing problems of concern to the community. These assumptions were

tested using a quasi-experimental design that compared attitudes and perceptions of residents in the EPD service area with those of residents in the rest of the City. There were two reasons for using the rest of the City as a control group: (1) it would have been difficult to find another area of the City that was a close match for the program area; and (2) reliance on one or two "matched" areas as controls leaves the evaluation highly vulnerable to the possibility that something (e.g., a dramatic crime or significant demographic change) will occur in the control areas during the course of the project that will cause the control area to become less comparable to the program area. When the remainder of the City is the control area, regression analyses can be used to control for the pre-test as well as for a wide range of demographic characteristics that might account for measured differences between experimental and control subjects. The same respondents were surveyed twice, the first survey was conducted in person in February and March of 1988 just prior to the opening of the EPD station; the second was conducted by telephone in February and March of 1990.

The goal was to interview 1200 Madison residents, 600 in the EPD service area of South Madison and 600 from throughout the rest of the City. Because the research team predicted a 75 percent completion rate, 1676 households were included in the initial sample. The selection of households was based on 1980 Census block statistics. The decision was made to exclude City blocks that were essentially business areas or that consisted primarily of student housing.

The analysis plan was based on the use of a panel; the same people were to be surveyed at Time 2 as were surveyed at Time 1. A panel analysis significantly strengthens the ability to determine that observed changes in the research area are due to the strategies being studied rather than to factors associated with changes in the composition of the population. To reduce the magnitude of panel attrition between the first and second surveys, an effort was made to eliminate areas of University student housing from the sample since students would be the segment of the Madison population with the highest rate of residential instability.

Letters from the Office of the Mayor were sent to the selected addresses a few days ahead of the scheduled contact. Interviewers carried a copy of that letter and presented photo identification cards at each residence.

The selection of respondents was made by the interviewers at the selected household addresses, using a Kish selection table included in each questionnaire. Individuals under the age of 18 were not included in the household listing.

Interviewers made a total of six attempts to interview the selected respondent in each household. All refusals in which the respondent was not hostile were reassigned to different interviewers. Twenty-five (25) percent of all completed interviews were validated, i.e., the respondent was recontacted to verify that the interview took place, that it required an appropriate amount of the respondent's time, and that a few key questions were answered the same way during the validation call as in the original contact.

The total number of completed interviews at Time 1 was 1,170. The response rate in the EPD area was 77.8 percent; it was 75.1 percent in the rest of the City.

The citizen survey questionnaires are available in the appendices of the technical report (Wycoff and Skogan, 1993) for this project.

C.2. Survey Administration

The Time 1 survey was administered in early 1988 by interviewers who were recruited, trained and supervised by Police Foundation personnel. Interviews were conducted in-person at the residence of the respondent. At the end of the interview, the respondent was asked for his or her telephone number. A review of the Time 1 data showed that 97.6 percent of the respondents gave their telephone number. This was an important factor in the decision to conduct the Time 2 survey by telephone. The Time 2 telephone interviews were conducted in early 1990 by the Wisconsin Survey Research Lab at the University of Wisconsin. In-person interviews were attempted with about 70 percent of the Time 1 respondents who did not provide telephone numbers.

For the post-test (1990) survey, 772 interviews were completed for a panel completion rate of 66.2 percent.

Among the 772 successfully completed interviews were 45 for which there were substantial mismatches between information provided in 1988 and 1990. The differences might have involved "change" of race or sex, decrease in age, increase in age by more than two years, decrease in years of education, or increase in years of education by more than two years. These 45 respondents were removed from the panel, leaving an analysis

panel of 727 respondents of whom 388 were from the Non-EPD areas of the City and 339 were from the EPD area.

C.3. Panel Attrition

Because of the lengthy period between the two administrations of the residents' survey, it is not unusual that 44 percent of Time 1 respondents could not be found for a reinterview. The attrition rate differed between the program and comparison areas of Madison. In the EPD area 56 percent of the original respondents were reinterviewed, as contrasted to 69 percent of those living elsewhere in Madison.

Panel attrition of this magnitude and distribution raises questions concerning the validity of inferences that can be made about the impact of the program upon the residents of Madison. To address these issues, analyses were done to examine correlates of attrition and the relationship between these factors and key outcome variables in this project. Attrition was strongly related in expected ways to indicators of family organization, affluence, community ties and work-force status of respondents. It was related also to prior burglary and vandalism victimization.

The main outcome measures used in the evaluation were unrelated to attrition, either in general or within the program and comparison areas. Also, there were no consistent differences between the areas in how rates of attrition were related to social and demographic factors. Estimates of the impact of naturally occurring variation in the kinds of factors being manipulated during the program period were the same among the initial panel sample and the reinterviewed subset. All of these factors suggest that neither overall sample attrition nor differential sample attrition threaten to bias the quantitative findings of the evaluation, either by masking or falsely suggesting program effects.

C.4. Analysis of Citizen Survey Data

As with the officer survey, the original analysis plan called for using regression analysis to determine whether an effect was occurring in the area served by the Experimental Police Station that differed from effects in the rest of the City. Two factors influenced a decision also to present within-group analyses.

- (1) The first was the recognition that change was occurring throughout the Madison Police Department that could result in improved service throughout the City.

- (2) The second was the recognition that the major focus of the change process, even into the second year, continued to be on internal reorientation with the result that fewer new policing initiatives or approaches were tested in the community than had been anticipated during the planning period. Through observations and discussions, the research staff came to believe that the community-oriented activities of EPD officers during the first two years were more likely to have an effect on individuals, on particular groups of people, or on certain businesses than on the entire survey area. With time, enough of these focused efforts would produce broader community awareness of the new orientation. Recognition would spread gradually; there would be no dramatic fanfare.

These two conditions increased the probability that regression analyses could mask changes that might demonstrate a pattern across indicators while not producing significant coefficients on many of them. Therefore, the technical report (Wycoff and Skogan, 1993) presents within-group analyses as well as regression analyses that allows for the observation of patterns that tests for the significance of differences between experimental and control subjects. The data are summarized in this report.

In the regression analysis, the following covariates were controlled: area of residency, number of adults in household, whether employed, education, residency in Madison in 1988, gender, U.S. Citizenship, length of time in Madison, months lived in current residence, number of children in household, student status, race, whether employed full or part-time, home ownership, income, whether living alone or as a couple, number of adults in household over 60 years of age, and respondent's age.

Whenever appropriate, multiple items have been used to measure a given construct. Factor analysis was used to confirm that the items selected to represent each potential outcome (e.g., fear of crime, etc.) were closely interrelated. Scores on separate items were then combined in an additive fashion to produce summary scale scores. Such scores are more reliable measures of the outcomes than their components taken individually, and have a range and distribution which are appropriate for statistical techniques such as multiple regression.

IV. THE EXPERIMENTAL POLICE DISTRICT

The decision was made to develop a prototype of a new organizational design in one part of the department before attempting to reshape the entire organization. The result was the "Experimental Police District" (EPD), the first decentralized police facility in Madison. Opened in 1988, the EPD housed approximately one-sixth of the Department's personnel, including patrol officers, detectives, and parking monitors, and served approximately one-sixth of Madison's population.

The charge of the Experimental Police District was to promote innovation and experimentation in three areas:

- (1) employee participation in decision-making about the conditions of work and the delivery of police service;
- (2) management and supervisory styles supportive of employee participation and of community-oriented and problem-oriented policing; and
- (3) the implementation of community-oriented and problem-oriented policing.

While these objectives formed the central focus for the EPD, the special district had a more general mandate to be "experimental" that extended beyond working through the problems of decentralization and creating closer relationships with the community. The EPD was to be the Department's laboratory. Personnel were encouraged to identify organizational policies and practices that should be questioned and to test alternatives. Decentralization was to be the first test the EPD undertook as a project.

A. Development and Operation of the Experimental Police District³

In 1986, the Police Chief proposed utilizing one of the City's existing patrol districts for the creation of the EPD, a decentralized station at which new ways of organizing the workplace and new methods of service delivery could be developed and tested. Planning for the EPD was done by a team

³ This description of the Experimental Police District (Section A) is indebted to the work of Chris Koper, currently (1992) a Ph.D. candidate at the University of Maryland, who worked for the Police Foundation as an intern during the summer of 1989.

of persons representing all areas and ranks of the Department. The planning process began in July of 1986 with a meeting for all those interested in the project. Those attending the meeting decided how the EPD project team would be chosen and designated a selection committee to select the team. Application for membership on the project team was open to all interested personnel. The selection committee then chose 10 people to serve on the team. The Chief reserved the right to choose a team leader and name a team facilitator. Additionally, he established a project coordinating team to act as a steering committee and assist the project team. The coordinating team consisted of then-Chief Couper, four captains, and the president of the officers' union.

One of the project team's first major tasks was to choose the project area from among the Department's six existing districts. In doing so, they used criteria which included area demographics, calls for service, crime profile, and need for services. The district they chose constitutes 10 square miles, making it about one-sixth of the City. The district also contains approximately one-sixth of the City's population with 29,000 people living in an estimated 12,775 households. The district has 11 neighborhood associations and 3 business groups, and there are four alderpersons representing areas within the district.

The population of the area is diverse and includes Whites, Blacks, Asians, Native Americans, and Hispanics. Relative to other areas of the City, minorities are overrepresented. Another significant feature is a large student population in one portion of the district.

Overall, the EPD accounts for 20 percent of the City's reported crimes. More specifically, the district experienced 17.7 percent of the City's property crimes, 16.9 percent of the personal crimes, and 16.7 percent of the general disturbances in 1986. Also in that year, the district had 15,761 calls for service which amounted to 16.3 percent of the Department's total. Nearly 40 percent of the district's calls involved assists, parking, accidents, or noise complaints.

As a first step in the planning process, project team members identified organizational problems that they felt needed to be corrected, such as lack of meaningful involvement with the community, lack of teamwork and/or team identity among officers, inflexible management styles and resulting loss of creativity, and lack of communication and information exchange among ranks. Team members next met in small groups with all the Department's employees to find out what they felt needed to be corrected. In addition, an EPD newsletter was published to

keep personnel informed about EPD developments, and employees were invited to attend weekly EPD planning meetings whenever they wished.

The project team also made efforts to get feedback from special groups within the Department. Sergeants, lieutenants, and captains were asked to identify what they thought should be the responsibilities of managers at the EPD. The Madison Professional Police Officers Association also was consulted in the planning process.

To get citizens involved, the project team held a total of eight community meetings in the project area, two in each alderman's district. The first set of meetings in each district was for people whom the Department and aldermen designated as community leaders. The second set of meetings was open to all concerned citizens. At the meetings, citizens were questioned about their knowledge of and satisfaction with police services, neighborhood problems and concerns, and how they felt police could work with them in responding to problems. The group process used at the meeting resulted in a listing of problems rated by priority.

Interested officers and sergeants were able to choose the EPD assignment as well as their shifts on a seniority basis. The captain and lieutenant (initially the EPD had only one lieutenant) were chosen according to a two part process. First, a list of interested candidates was given to the project team and all personnel who would be working at the EPD. All of the project team members and EPD personnel voted for their choice for each position. In the second phase of the selection process, the candidates answered essay questions developed by the project team. All project team members and EPD members then voted on the best essays. Identities of the essay respondents were kept anonymous. Scores from both phases were totalled and the selections made.

In addition to Quality/Productivity training, which all members of the Department received, the EPD conducted its own four-day training session. Professor Herman Goldstein of the University of Wisconsin Law School spent one of these days discussing problem-oriented policing with the group. Problem-oriented policing is an operational philosophy that calls for officers to look beyond individual incidents (crimes, disturbances, etc.) to identify recurring problems and, most importantly, the underlying causes which contribute to those problems. Once these problems are better understood, officers should draw upon both police and community resources to address the problems, thereby preventing future incidents.

Much of the rest of the EPD training focused on decentralization issues and developing teamwork. Trainers also discussed the use of data for problem analysis and measurement of problem resolution.

The EPD continues to hold training sessions when necessary to address issues that arise. Patrol officers, neighborhood officers, and detectives who work the same area are brought together to identify area problems and work on solutions. Occasionally, the EPD invites personnel from the Department's central station to attend EPD training sessions to discuss problems between EPD and central personnel. Though the training function will remain formally at the central station, EPD managers feel that having their own training sessions has facilitated teamwork and the handling of area problems.

Opened in April 1988, the EPD currently has 41 sworn employees: 22 patrol officers (the station is authorized to have 23), 3 neighborhood officers, 6 detectives, 3 parking monitors, 4 sergeants, 1 lieutenant, and 1 captain. The captain has responsibility for all patrol and investigative operations at the station. The captain reports to the Department's deputy chief of operations but has substantial flexibility in running the EPD. Besides the sworn personnel, the EPD has a civilian stenographer, 2 volunteers, and, at times, one or more student interns.

The EPD station is a small building approximately 30' x 50'. There are two floors. The ground floor provides the operational space. The basement contains lockers for officers, an exercise area, and storage space. It has work areas for the officers and detectives, a room for equipment and temporary storage of evidence, and a reception area (see Floor Plan, Exhibit 4-1). There is a computer at the station that is linked to the Department's main computer and can be used for activities such as address checks, license checks, and review of area crimes and calls for service. The station has a fax machine and a copy machine.

The computer is at a work station between the copy machine and a "kitchenette" area where a sink, small refrigerator, and coffee pot are located. These are on one wall of the briefing room which is dominated by a large table surrounded by comfortable chairs. The arrangement suggests a corporate conference room rather than a traditional roll call room. There is no podium and no special commander's chair. The service counter that citizens approach from the public entrance is open to the briefing room. The secretary's desk is situated at the end of the briefing room adjacent to the administrative office. To go anywhere else in the building, the captain or lieutenant, who are in the administrative office, pass through the briefing room. There is no separate lounge area in the

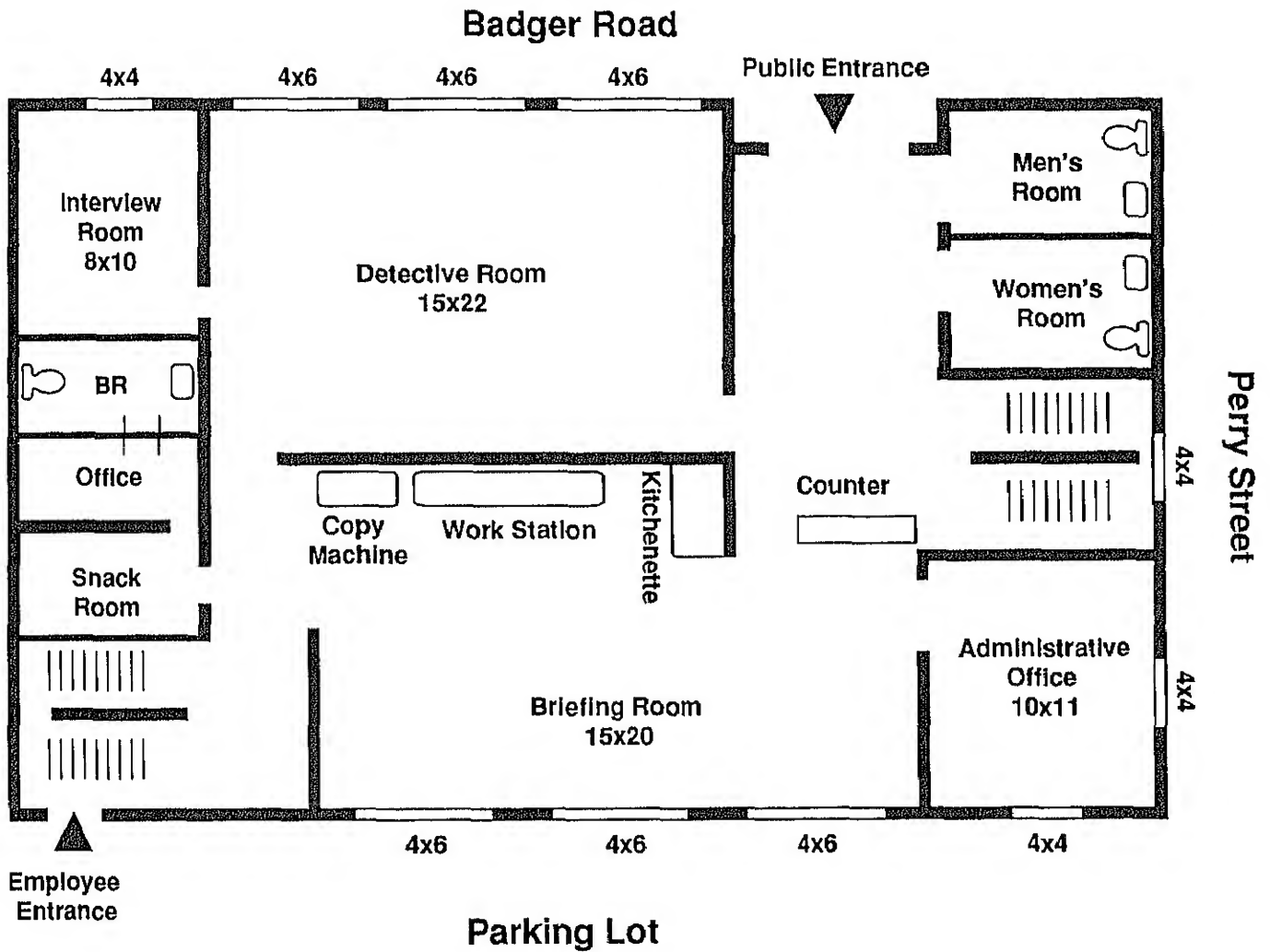
building. If someone wants to sit down for a cup of coffee or to eat a meal they have bought with them, they do it at the briefing room table. This is also where officers do paperwork. If there are committee meetings, this is where they occur. Because of its location and the functions, the briefing room is critical to (and probably a major cause of) the close interactions among all EPD personnel. It even facilitates interaction across shifts. While it is the core of the workspace, it is also the EPD "family room"—a place where officers often gather to talk prior to the beginning of their shift and where they are likely to remain for a period afterward for conversation or coffee. It is not uncommon to find personnel from two different shifts talking together before briefing.

If additional decentralized stations are built, it is expected they will have more space and equipment than does the EPD. At that time, the EPD, too, may be moved to a larger facility. If they had the option, EPD personnel would vote for expanded space, but they very probably would remain sensitive to its configuration. When some new officers transferred into the EPD at the end of the evaluation period, they suggested at an early group meeting that the briefing room be moved into available basement space so there would be fewer disruptions during meetings and when doing paperwork. The long-term EPD members explained the multiple advantages of the upstairs location, and the arrangement remained unchanged. Clearly, space configuration can facilitate or hinder team-building.

The concept of Quality Leadership is viewed as the foundation for the other changes being implemented at the EPD and the rest of the department. This management philosophy is based heavily on the work of management expert Edwards Deming (1986), who holds that managers should seek the input of their employees in making decisions and make efforts to better understand the needs and perceptions of the customers (for police, citizens) they serve. Deming calls this approach "Quality Productivity" (Q/P). Its ends are better service and a healthier and more rewarding workplace for employees. In practice, Q/P means interacting with customers to determine which services need improvement, using the expertise of line personnel to improve work processes, collecting data and using it to inform decision-making, and allowing employees to have greater control over their working conditions.

EXHIBIT 4-1

FLOOR PLAN FOR EXPERIMENTAL POLICE DISTRICT BUILDING
First Floor



In Madison, these ideas are reflected in the Department's Twelve Principles of Quality Leadership. (Emphases are those of the Madison Police Department.)

1. Believe in, foster and support TEAMWORK.
2. Be committed to the PROBLEM-SOLVING process; use it and let DATA, not emotions, drive decisions.
3. Seek employees' INPUT before you make key decisions.
4. Believe that the best way to improve the quality of work or service is to ASK and LISTEN to employees who are doing the work.
5. Strive to develop mutual RESPECT and TRUST among employees.
6. Have a CUSTOMER orientation and focus toward employees and citizens.
7. Manage on the BEHAVIOR of 95 percent of employees and not on the 5 percent who cause problems.
8. IMPROVE SYSTEMS and examine processes before blaming people.
9. Avoid "top-down," POWER-ORIENTED decision-making whenever possible.
10. Encourage CREATIVITY through RISK-TAKING and be tolerant of honest MISTAKES.
11. Be a FACILITATOR and COACH. Develop an OPEN atmosphere that encourages providing and accepting FEEDBACK.
12. With teamwork, develop with employees agreed-upon GOALS and a PLAN to achieve them.

These principles are guiding the entire Department at this time but are given concerted attention in the EPD where the managers were selected, in part, because of their personal commitment to these ideas. The captain and lieutenant report seeing themselves as facilitators of officers' efforts to identify and solve problems. Their goals are to become coaches and teachers who allow and encourage creativity and risk-taking among officers. They have given officers substantial latitude to decide their own schedules, determine their work conditions, and decide how to address neighborhood problems. In other matters, the managers consider the input of employees before making decisions.

EPD managers try to encourage problem-solving by offering ideas, information, and scheduling alternatives. Yet they do not direct officers to do any particular neighborhood problem-solving activities. Initially, the

EPD project team had planned for EPD personnel to develop specific community policing strategies for the station. However, it was decided after opening the station that EPD officers should individually, or in smaller teams, identify neighborhood problems and plan responses. Though things moved slowly at the beginning, the managers report that they are starting to see increased use of problem-solving as a tool.

When officers identify problems, they are free to consult other officers and their supervisors to make arrangements for the necessary time and resources to address the problems. (This means ensuring there will be enough people working, enough cars available, etc.). To date, the managers feel this practice has worked well. Officers have worked cooperatively, switching their days off or changing their schedules in other ways to accommodate their colleagues. Managers provide support by facilitating teamwork between shifts and coordinating the efforts of officers wishing to address the same problems.

To help make time for problem-solving and shift meetings, the sergeants, the lieutenant, and even the captain work the streets from time to time. This has the added benefit of giving managers a better sense of the types of data and other resources their officers need in order to identify and address neighborhood problems. The EPD managers tend to think of this as management participation versus participatory management. By occasionally working the streets to allow officers time for other activities, the managers add to the sense of teamwork among EPD employees. To illustrate, one evening a sergeant needed an officer to stake out a liquor store suspected of selling to minors. Because it was considered a boring assignment, no one volunteered. Rather than arbitrarily assign it, the sergeant said he would work it. During the course of the stakeout, however, he was visited at one point or another by all of the shift officers, each of whom offered to relieve him.

Supervision and discipline are deliberately more informal at the EPD than in the rest of the Department. Managers consciously attempt to accept honest mistakes. As stated previously, officers are given wider latitude for carrying out problem-solving activities and are encouraged to seek innovative solutions and take risks. Accordingly, disciplinary actions are more likely to begin with an attempt at reconciliation between citizen and officer. When looking at incidents between officers and citizens or officers and other officers, EPD managers are not quick to label incidents as complaints and to institute formal processes. Instead, incidents are examined to see whether they involved honest operational mistakes or blatant wrongdoing.

Further, by sharing decision-making with officers, managers have fostered supervision by peers. Rather than depending on their sergeants to handle problems among officers, EPD officers are learning to handle these issues through informal discussions, and group discussions at shift meetings and roll call meetings.

In general, the environment created at the EPD is one in which compromise, teamwork, and creativity are stressed. Within the framework of Quality Leadership, the EPD managers encourage community policing by giving officers the flexibility to pursue their interests and address community needs.

The EPD uses three patrol shifts, a 7 am to 3 pm day shift, a 3 pm to 11 pm evening shift, and an 11 pm to 7 am night shift. When the station opened, the patrol officers felt each shift should decide how to deploy its personnel throughout the district. As a result, each shift devised a different deployment scheme. The day shift, for example, divides the district into two areas. On a given day, there is usually one permanently assigned officer in each of the two areas who is responsible for the neighborhoods in the area, while two other officers act as "rovers" covering the whole district. Thus, not all of the patrol officers have responsibility for specific neighborhoods. The district is small enough, however, for all of the officers to be familiar with the various neighborhoods. Shifts may be rotated after one year and are chosen by seniority.

Officers communicate with their counterparts on other shifts through a shift overlap procedure. Officers finishing their shifts return to the station a few minutes early while officers on the next shift come in a few minutes early. Dispatchers facilitate this by placing the EPD's non-emergency calls on hold during the last half-hour of each shift. The shift overlap procedure provides an opportunity for officers to discuss important events and general conditions of their areas. Officers also use phone calls and notes to communicate with personnel on different shifts.

Dispatch for the City of Madison is now handled by employees of the county government through the county's new 911 system. Dispatchers try to keep EPD officers in their district as often as possible and do not send them out of the district for low priority or routine calls. If a shift uses rover officers, they act as backups whenever possible to help the permanently assigned officers stay in their areas. Nevertheless, beat integrity is not always maintained, and officers are sometimes too busy handling calls to do problem-solving.

EPD officers report they are beginning to interact to a greater extent with citizens. When answering service calls, officers make notes and ask citizens if there are problems, other than the subject of the call, about which officers should be aware. Officers also make more efforts to talk informally with citizens, visit businesses and schools, and attend neighborhood meetings. This reflects an emphasis on what managers at the EPD and in the rest of the Department call "value added service." Basically, this means going the extra distance to do a good job: spending more time at calls for service; making follow-up visits or calls to problem addresses; analyzing calls for service to identify problems and proactively contacting those involved to seek a solution; and, in general, taking more time to understand the problems and concerns of citizens.

Officers from the EPD cooperated with a neighborhood association, for instance, to correct a speeding problem in one of the district's neighborhoods. In a community meeting with EPD officers, area residents had identified speeding on a particular street as a major concern. Three officers worked the problem street by setting up an electronic sign that displayed the speed of passing cars and pulling over speeding motorists. Instead of issuing tickets, though, the officers gave the speeders warnings. Neighborhood residents participated with the officers by delivering personal pleas to the speeders and giving them a flyer explaining the speeding problem and showing them what they would have been fined had the officers chosen to give them tickets.

Patrol officers at the EPD are allowed to develop their own, individualized patrol strategies if they wish; managers encourage problem-solving but do not force it. Getting the officers involved in problem-solving has been a gradual process. Some of the officers who came to the EPD came for reasons other than the opportunity to do community-oriented policing. They may have been attracted by the EPD management style, the chance to work a different shift or work closer to home, or by more convenient parking. Nonetheless, active problem-solving officers have, in some cases, drawn these other officers into community-oriented work by asking for their help on different projects.

The flexibility EPD officers have to pursue interests and the teamwork orientation of the EPD employees are the major forces behind changes in service delivery. If, for example, a patrol officer wishes to work plainclothes on a burglary problem, he is free to set it up with his supervisor and any other officer, such as a detective or a neighborhood officer, with whom he would like to work on the problem. In another police setting, such a request from a patrol officer might be denied out of

concern for the awkward, unmanageable precedent it would set. At the EPD, this is the desired precedent.

Patrol sergeants at the EPD spend some of their time working with patrol officers on the streets. The sergeants meet with their officers at daily briefings to discuss the officers' area observations and activities. (The EPD has not yet developed an instrument for formal documentation of officers' neighborhood problem-solving activities).⁴ In an administrative capacity, sergeants are responsible for a number of tasks, most importantly setting work schedules that will maintain necessary staffing levels and accommodate officers' problem-solving activities. Further, they hold regular meetings with their officers at which they discuss issues such as scheduling, problem-solving, training, personnel matters, and other topics of concern to the officers.

The lieutenant and the captain have patrol management responsibilities that are, to some degree, interchangeable. Besides their administrative tasks, they are leaders in problem-solving. They accomplish this, in part, by collecting and presenting crime statistics, accident statistics, information on repeat calls for service, results of surveys given to citizens and EPD personnel, and information they receive from neighborhood groups and alderpersons. The lieutenant and captain work evening and night shifts on occasion to make themselves available to officers working those shifts. They also work the streets when necessary to make time for shift meetings or other special activities. Finally, they act as the lead liaisons with neighborhood groups, district alderpersons, and the Department's central personnel.

B. The Context of the Experimental Police District Implementation

The implementation of the Experimental Police District did not, of course, occur in a vacuum. The phenomenon of the EPD and the process that produced it are part of a larger context with at least three levels: the Madison Police Department; the City of Madison; and the profession of policing.

B.1. The Madison Police Department

The context of the Department can be divided into the current and the historical context.

⁴ This remains true in 1993.

The current context within which the EPD opened its doors was that of an organization with a highly educated and socially diverse workforce. In 1988 approximately one-half of the MPD employees had a college education or higher degree. Nineteen percent of the employees were women. While the preponderance of employees (and the entire command staff) were White, there were several Hispanics and Blacks in supervisory ranks and the detective bureau. There was a high ranking female on the management team.

Even prior to the evolution of Quality Leadership, managers did not appear to be heavily traditional in their management style. The command staff was relatively young, not overtly concerned with rank and power, and they appeared to be "open" and "approachable." Managers and supervisors collectively gave the impression of being committed to the job, the organization, and the community.

Organizational life was relaxed but orderly and respectful. In 1987 the odor of popcorn might have been a visitor's first hint of the organizational culture. There was little apparent apprehension about the physical security of the building or individual offices; there was no sense of a "fortress mentality" even after a fatal shooting that occurred in the hallway of the City/County Building where the Department is housed. Dress codes did not appear to be rigid but Madison officers, almost without exception, appeared neat and professional. The same was true of work spaces. There were no potentially offensive calendars, posters, or cartoons on the walls. Observers overheard no crude jokes, no racial or ethnic slurs. Cultural diversity within the workforce was a value that was strongly stated in the Department's mission statement, and was reinforced by the atmosphere of the organization.⁵

A sense of respectfulness was noted in the daily work of officers. Observers saw citizens virtually always well treated, regardless whether the citizen was a college professor in a community meeting or a rumpled drunk

⁵ As with any of the other organizational goals, respect for cultural diversity did not occur as an automatic function of the Department adopting diversity as one of its values. In 1987 one researcher observed a few examples of graffiti in police locker rooms that indicated tension among officers of differing sexual orientations. In 1992, when officers were asked whether such graffiti still could be found, even officers in the targeted group responded negatively and had trouble recalling that there had once been slurs scrawled on locker doors. The explanation offered was that as officers of various backgrounds, interests or orientations worked together and became acquainted, interpersonal tensions decreased.

in a holding cell. Officers were courteous and competent. During the project, an issue of considerable concern to the management team was the appropriate response to an officer who had reported his own mistreatment of a citizen. A person lying under a bush would not move when the officer requested that he do so; after repeated requests, the officer rapped the soles of the person's shoes with a night stick. The officer reported his actions, and the management team took them under review.

While officers seemed directed by a clear sense of professional propriety, they did not appear bound by a narrow set of rules or expectations about the way in which work would be done. There seemed to be considerable latitude for individual styles. This tolerance for individuality meant there was no single line of thought about what the job should be or how it should be done; differences in approach resulted in discussion and analysis rather than conflict and hostility.

With respect to organizational change, there is also an important historical context within which to consider the Department's efforts. The Madison Police Department has been experiencing planned change since at least 1973 when David Couper became Chief. A review of fifteen years of history at the time the project began (1987) revealed an organization that had been moving, if sometimes taking turns that were later abandoned, in the general direction in which the Department was focusing its efforts in 1987. In 1989, the Chief gave an address to a local business group to which he had spoken shortly after taking office in 1973. In comparing his notes for the 1989 speech with those from the original speech, he was himself surprised to find the general outline of the current change effort in that early presentation. (Chief Couper retired in August 1993.) There has been, for many years in the Madison Department, a ongoing commitment to seek better, more effective ways of delivering police service.

MADISON POLICE OFFICERS We've Survived	
ACADEMY TRAINING	LACK OF PRIORITIES
ADMINISTRATORS	LOW MORALE
BAIL SCHEDULE REVISIONS	MANAGEMENT TEAM
BIKE PATROL	MEMOS
BLUE TENT	MISSION STATEMENTS
BOTTOM-UP MANAGEMENT	NEIGHBORHOOD BUREAU
BRAINSTORMING	O.I.C.
BUDGETARY PROCESS	P & BB
CALL DIVERSION	PINK PAPER
CAREER DEVELOPMENT	"POLICE IN A FREE SOCIETY"
CHOIR PRACTICE	POLICY MANUAL
COMMITTEES TO SELECT	PORTABLE RADIO SELECTION
COMMITTEES	POSTERIOR OSCULATION
COMPUTERIZED NEWSLETTERS	PRIMA DONNAS
CONTRACT NEGOTIATIONS	QUALITY LEADERSHIP
DEMING	QUALITY PRODUCTIVITY
DISPATCHERS	RECRUITMENT PROCESS
DOLLARS FOR DAVID	RECTAL CRANIAL INVERSION
ENGLISH PATROL METHOD	ATTITUDE
EXPERIMENTAL POLICE DISTRICT	RESIDENCY
EXTERNAL CUSTOMERS	RIOTS
FACILITATOR	SEMI-AUTO TRANSITION
FIELD TRAINING	S.O.S./N.R.U./S.P.T.
IMPLEMENTATION PROCESS	SUBCOMPACT SQUADS
INPUT-FEEDBACK	TEDDY BEARS
IN-SERVICE	UNDERSTAFFING
INTERNAL AFFAIRS DIVISION	
_____ }	TO BE COMPLETED WITH
_____ }	FUTURE PROGRAMS
_____ }	
_____ }	

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A similar point is made more academically and with close attention to the change process in a publication by then-Chief Couper and Sabine Lobitz (1991) in which they describe the Madison experience with change in preparation for Quality Policing. They discuss the way in which the Officer's Advisory Committee, the Committee on the Future of the Department, participation in the City's Quality and Productivity efforts, development of a mission statement, experimentation with the Neighborhood Service Bureau, and a number of other steps all led incrementally to Quality Leadership and the planning of the Experimental Police District. The volume describes a continuing process of moving an organization and preparing it for additional change. It is valuable reading for any manager who seeks ways of improving an organization.

Apart from the specifics of Madison's experiences and the lessons they may hold, the critical point of both the tee shirt or the Couper and Lobitz volume is that the Department did not begin suddenly, in 1985 or 1986, to develop a management philosophy and a program and move off in new directions; there is a long and strong history of organizational preparedness for the specific change process portrayed in this report. The Department's stated commitment to constant, steady improvement argues that the change process is and should be continuous.

B.2. The City of Madison

Couper and Lobitz describe in their monograph the involvement of the City of Madison in the Quality/Productivity (Q/P) movement, beginning in 1985 when the ideas were introduced by then-Mayor Joseph Sensenbrenner. (See also Sensenbrenner, 1991.) The City sponsored workshops and training in the Deming approach and the Mayor's office committed staff that helped train facilitators in various City departments. The Mayor established a competition among City departments to develop QP projects, one result of which was the plan for the Experimental Police District. It is apparent, and fully acknowledged by the Chief, that the commitment by the City to Deming's ideas was a major source of support and stimulation for the efforts in the Police Department. When Mayor Sensenbrenner lost re-election, there was concern about whether that support would continue under Mayor Paul Soglin who, after review of the ideas and their application in the City, has endorsed them.

The context of the City includes the University of Wisconsin where MPD employees are frequently enrolled in classes and the Chief, other managers and employees may be invited to lecture. There are faculty members, including Herman Goldstein, the leading advocate of problem-oriented policing, who maintain a close relationship with the Department.

Every semester law students or sociology students conduct observations or other research in the Department. These contacts and access to the campus library facilitate the flow of professional literature and ideas through the Department.

Beyond this, the City of Madison and the State of Wisconsin are heirs of the "progressive tradition," a political philosophy and movement begun in the State during the last century. Its tenets of government involvement to improve quality of life continue to provide a socio-political underpinning for institutional change even in conservative political eras.

B.3. The Policing Profession

During the past twenty years, the policing profession has developed a literature and a growing commitment to research as one important means of determining policies, procedures and organizational orientations. Many of the current Madison ideas (i.e., teamwork, participatory management, decentralization, closer contact with the community) were ideas being voiced in the just emerging body of police literature in the early 1970s. There were progressive chiefs who attempted to implement some of these same ideas then, only to find, in many cases, that they either did not know how to manage organizational change or that their organizations simply were not prepared to accept it. A literature and a body of research based on these ideas have developed over the past two decades. During this same period there has been ever increasing commitment to higher education for police and ever greater numbers of personnel have been enrolled in courses where the literature and these ideas were part of the curriculum. Twenty years ago police managers were confronted with some radically new notions about policing and police management. Police managers today take many of the same ideas for granted; they have grown up with them and they are now in positions to begin implementing them.

As they have become more highly educated, police managers have been more likely to absorb the management literature of other professions. The ideas behind Quality Leadership and employee participation are not the products of police literature and research; they come from the literature of business schools. Because police managers and employees of the 1990s are exposed to and seeking broader bases of knowledge, efforts to change police organizations may no longer be synonymous with trying to "bend granite" (Guyot, 1979).

V. INTERNAL EFFECTS: CONSEQUENCES OF THE CHANGE PROCESS FOR THE ORGANIZATION AND PERSONNEL

This section summarizes the findings about the consequences of the change process for the organization and its employees. The data are from the three surveys of sworn personnel conducted in 1987, 1988, and 1989. The findings presented below are for the panel members, those officers who were in either the EPD group or the Non-EPD group for the entire two year period and who completed all three surveys. There are 25 EPD panel members and 144 Non-EPD panel members. The number of respondents varies by question or scale. The detailed data and description of the analyses on which these summaries are based as well as data for cross-sectional analyses are presented in the technical report for this project. (Wycoff and Skogan, 1993.)

The tables in this chapter report two types of data. The first two columns of each table (headed "NON-EPD" and "EPD") report data for within-group analyses. Each cell in a column shows the direction and magnitude of change over time for that one group of officers. For example, in Table 5-1, the second cell in the column labeled "NON-EPD" reports that the scores of these officers on a scale measuring participatory management increased by 3.4 points between the first and third surveys. Beneath this value, the number in parentheses (.001) says that the change is statistically significant. In this case, the odds of this finding occurring by chance are 1 in 1000. The third column reports the results of a between-group regression analysis that indicates the extent to which the changes were related to service in the Experimental Police District. The within-group analyses let us examine patterns of changes across variables. The regression analysis provides the test of program impact. The "b" reported in the third column is the size of the regression coefficient; the statistical significance of the coefficient is recorded beneath it. In the second row of Table 5-1, the third column tells us that a score on this scale in the final officer survey was positively and significantly related to membership in the EPD. Although the NON-EPD officers reported a larger change over time, the EPD officers reported a significantly stronger perception of being involved in participatory management at Time 3 than did the NON-EPD officers, thus accounting for the significant "b."

A. Quality Leadership

It was expected that, by Time 3, EPD officers would be more likely than Non-EPD officers to believe that Quality Leadership had been implemented. At Time 3, twelve questions were asked about the extent to which each of the twelve principles of Quality Leadership had been implemented. At all three survey times, officers were asked a series of

questions about the extent to which they perceived themselves involved in a process of participatory management. Findings from this scale are reported in the second row of Table 5-1.

TABLE 5-1

Indicators of Quality Leadership
Direction, Magnitude and Significance of Change

Indicator	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
Twelve questions about whether Quality Leadership was implemented	Inap	Inap	Inap
Scale ⁶ measuring perception of participatory management	+3.4 (.001)*	+.8 (.001)*	2.38 (.001)*

*Significance $\leq .05$

Inap = Time 3 question only.

The one-time (Time 3) analysis of the twelve items about the implementation of Quality Leadership does not conform to this table, but on all twelve items EPD respondents were significantly more likely (.001) to believe Quality Leadership had been implemented than were Non-EPD respondents.

Findings based on the participatory management scale indicate that respondents in both groups were significantly more likely over time to believe that participatory management had been achieved; even so, at Time 3, EPD officers were significantly more likely to believe that it had than were Non-EPD officers.

B. Employee Input

The officer survey lacked items about the extent to which employees were having input into organizational decisions. However, repeated observations of patrol briefing sessions and team meetings as well as conversations with employees indicate that between 1987 and 1989 employees throughout the Madison Police Department played an increasingly greater role in organizational decision-making.

⁶ Scale is from Vroom, 1959.

C. Working Conditions

C.1. Employee Interaction

It was anticipated that both the physical arrangements at the Experimental Police District and the management style that was to be used there would result in closer working relationships among employees. Two scales were used to measure this potential outcome. The first examined the extent to which employees felt they worked closely with colleagues. The second asked whether officers felt they received feedback about their performance from other officers.

TABLE 5-2

Indicators of Employee Interaction
Direction, Magnitude and Significance of Change

Indicator	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
3-item scale ⁷ measuring extent to which job requires close cooperation with other workers	+ .2 (.25)	+ 2.0 (.02)*	.55 (.26)
3-item scale ⁸ measuring extent to which officers feel they receive feedback from other officers	- .2 (.46)	+ 2.5 (.01)*	2.18 (.001)*

*Significance $\leq .05$

Over time EPD officers became significantly more likely to believe they work in close cooperation with others. There was a slight but insignificant change in this direction for Non-EPD officers. Regression analysis found a positive but insignificant relationship between Time 3 scores on this scale and EPD membership.

EPD officers became significantly more likely to feel they received feedback from other officers. Time 3 scores on this scale were related significantly to EPD membership.

⁷ Scale is from Hackman and Oldham, 1974.

⁸ Scale is from Hackman and Oldham, 1974.

C.2. Patrol Officer and Detective Interaction

The working relationships at the EPD and the assignment there of detectives to geographic areas were expected to produce closer working relationships between patrol officers and detectives. Respondents were asked about the number of contacts between the two groups and about the frequency with which officers became involved in investigations.

TABLE 5-3

Indicators of Patrol Officer and Detective Interaction
Direction, Magnitude and Significance of Change

Indicator	NON-EPD Size and Probability of Change	EPD Size and Probability of Change	b Significance
Question about number of contacts per week between patrol officers and detectives	-.9 (.14)	+8.5 (.001)*	.45 (.01)*
Question about frequency with which patrol officers participate in follow-up investigations	+.0 (.66)	+.3 (.07)	.45 (.01)*

*Significance $\leq .05$

Membership in the EPD was positively and significantly associated with greater reported contact between officers and detectives and with greater reported involvement of officers in follow-up investigations.

C.3. Problem-Solving

Given the training EPD officers received in problem-solving and the managerial support that was to be provided for it, it was expected that they would feel more successful and more supported as problem solvers. Two questions about problem-solving were asked in the Time 3 survey only.

TABLE 5-4

Questions About Problem-Solving
Time 3 Only
Means and Probabilities

Indicator	NON-EPD Time 3	EPD Time 3	Probability
Question about perceived success at problem-solving	3.4	4.2	.11
Question about organizational support for problem-solving	3.6	4.9	.001*

* Significance $\leq .05$

When asked about their success at problem-solving, both groups tended to report success some of the time, with EPD officers more likely to report feeling successful than Non-EPD officers. The difference was significant in the cross-sectional but not the panel analysis.

When asked about levels of support for problem-solving efforts, EPD officers were significantly more likely ($p \leq .05$) than their Non-EPD counterparts to report that the organization supported them.

C.4. Time Available for Proactive Work

EPD officers should be expected to have more time to conduct problem-solving or other proactive work. Efforts are made to keep them working within the EPD area except for high priority call outside the EPD, and they have the opportunity to arrange their work schedules to accommodate these efforts.

TABLE 5-5

Availability of Time for Proactive Work
Direction, Magnitude and Significance of Change

Indicator	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
Question about time available for proactive work	-.1 (.15)	+.0 (.80)	.32 (.10)

There were no significant changes over time in perceptions of either group of officers about their ability find time for proactive work. Both groups at all times tended to rate the ability to find such time at the mid-point between "very difficult" and "very easy." The data cannot indicate why EPD officers do not feel they have more time available for proactive work. We can only suggest that this is an issue that EPD managers should explore with personnel.

C.5. Ease of Arranging Schedules

These were questions about the ability to arrange schedules to permit activities other than work. It was anticipated that the small work group at the EPD would find it easier to shift schedules to accommodate both personal and training needs.

TABLE 5-6
Indicators of Ease of Scheduling
Direction, Magnitude and Significance of Change

Indicator	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
Question about ease of taking comp or vacation time	+ .1 (.22)	+ .2 (.21)	.44 (.02)*
Dept. data about the number of training hours per officer	-5 hours (Inap)	+40 hours (Inap)	Inap

*Significance $\leq .05$

Inap = descriptive data only.

Officers' belief that it was easy to take time off when they wanted to was positively and significantly associated with membership in the EPD where officers negotiated schedules among themselves (with subsequent review by a sergeant) and sergeants and managers sometimes would work the streets in order to accommodate an officer's need to be off duty. EPD managers would do the same to make more training time available for their officers; the consequences are reflected by the dramatic increase in training time for EPD officers. Managers report this was due also to the ease of communicating training opportunities to a smaller group of employees.

C.6. Safety of Working Conditions

A question about the availability of backup was asked because some officers feared that decentralization and the use of "flex time" would reduce the number of personnel available for this function.

TABLE 5-7
Availability of Backup
Direction, Magnitude and Significance of Change

Indicator	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
Question about frequency with which backup is available when needed	-.2 (.001)*	-.1 (.74)	.33 (.01)*

*Significance $\leq .05$

Non-EPD officers did report a slight but significant decrease in the extent to which they perceived backup support being available. Officers in both groups perceived backup as being "often" to "almost always" available. At Time 3, perceived availability of backup was related significantly to EPD membership.

D. Job-Related Attitudes

A central expectation of the Madison effort was that as management practices and conditions of work changed, officers would develop more positive attitudes toward several aspects of the job, the organization, and the community.

D.1. Satisfaction With Working Conditions

It was expected that EPD officers would be more satisfied with the smaller, more relaxed environment of the Experimental Police District station and that they would have the opportunity to change other conditions that they might feel needed correction.

TABLE 5-8

Satisfaction with Physical Working Conditions
Direction, Magnitude and Significance of Change

Indicator	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
6-item scale ⁹ concerning satisfaction with physical working conditions	+1.2 (.001)*	+2.3 (.04)*	1.68 (.03)*

*Significance $\leq .05$

Over time officers in both groups became significantly more satisfied with their physical working conditions; even so, at Time 3, satisfaction with physical working conditions was positively and significantly associated with membership in the EPD.

⁹ Scale is from Dunham and Smith, 1977.

D.2. Satisfaction With Kind of Work

EPD officers were to have more latitude to make decisions about the work they did and the way they did it. They also were to have flexibility in scheduling their time to accomplish specific tasks. It was expected that these conditions would lead to greater satisfaction with the kind of work the job entails.

TABLE 5-9

Satisfaction with Kind of Work
Direction, Magnitude and Significance of Change

Indicator	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
6-item scale ¹⁰ concerning satisfaction with the kind of work the job entails	+3 (.18)	+1.5 (.04)*	.69 (.22)

*Significance $\leq .05$

This is an indicator on which EPD officers registered lower satisfaction in 1987 than did Non-EPD officers. By 1989, EPD officers were significantly more satisfied with the kind of work they were doing and were slightly more satisfied than Non-EPD officers. The Time 3 scores on this variable were positively but not significantly related to EPD membership.

¹⁰ Scale is from Dunham and Smith, 1977.

D.3. Satisfaction With the Organization

The variety of changes associated with assignment to the EPD (e.g., small work group, management style, greater freedom to make work-related decisions) was expected to lead to greater satisfaction with the organization as a place to work.

TABLE 5-10

Satisfaction with Organization
Direction, Magnitude and Significance of Change

Indicator	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
6-item scale ¹¹ concerning satisfaction with the MPD as a place to work	+ .3 (.33)	+1.7 (.05)*	1.99 (.01)*

* Significance $\leq .05$

On this indicator, EPD officers registered more satisfaction in 1987 than did Non-EPD officers and they became significantly more satisfied over time. The Time 3 scores were positively and significantly related to membership in the EPD.

¹¹ Scale is from Dunham and Smith, 1977.

D.4. Satisfaction With Supervision

The closer working relationship between officers and supervisors at the EPD was expected to result in more positive attitudes toward supervision among EPD members.

TABLE 5-11

Satisfaction with Supervision
Direction, Magnitude and Significance of Change

Indicator	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
6-item scale ¹² concerning satisfaction with supervision	+ .8 (.09)	+ 1.8 (.04)*	1.64 (.04)*

* Significance $\leq .05$

This is another case in which EPD panel respondents were more satisfied than Non-EPD panel respondents in 1987 and continued to be more highly satisfied in 1989. Time 3 levels of satisfaction with supervision were positively and significantly related to EPD membership.

¹² Scale is from Dunham and Smith, 1977.

D.5. Commitment to Department

If officers became more satisfied, then it was anticipated that they would feel stronger commitment to the organization. Commitment was assessed by asking officers how long they planned to remain with the department and by the number of sick hours that officers spent away from the job.

TABLE 5-12

Commitment to Department Direction, Magnitude and Significance of Change

Indicator	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
Question about frequency with which respondent considers leaving the organization	+ .2 (.01)*	+ .1 (.43)	-.17 (.37)
Department data on average hours of sick leave	-6 hours (Inap)	-16 hours (Inap)	Inap

*Significance $\leq .05$

Inap = descriptive data only.

Both Non-EPD and EPD officers were slightly more likely to consider leaving the organization (everyone had aged?); the change was significant for Non-EPD officers. The Time 3 scores were negatively but insignificantly associated with EPD membership.

Over the course of the project, EPD officers did dramatically reduce their use of sick time, suggesting, perhaps, a strengthened sense of commitment to the job.

D.6. Psychological Relationship to Work

The scales in this section are designed to capture the relationship between the employee and the job in terms of the effect the job may have on the employee's feelings about the value of the work and the potential for freedom and growth in the job. EPD officers were expected to feel greater significance for their work, to have a stronger sense of identity with an assigned task (or the sense that they were able to do a "whole" task rather than only a part of it), a greater sense of autonomy, and greater satisfaction with their potential for personal growth on the job.

TABLE 5-13

Psychological Relationship to Work
Direction, Magnitude and Significance of Change

Indicator	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
3-item scale ¹³ measuring the perceived significance of the job	+ .4 (.04)*	+ .8 (.08)	.13 (.75)
3-item scale ¹⁴ measuring sense of task identity or "wholeness"	+ .2 (.26)	+ 2.0 (.01)*	1.21 (.04)*
3-item scale ¹⁵ measuring sense of autonomy in job	+ .2 (.26)	+ .9 (.18)	.75 (.05)*
4-item scale ¹⁶ measuring satisfaction with potential for personal growth in job	+ .3 (.39)	+ 1.8 (.01)*	.84 (.14)

*Significance $\leq .05$

On all four of these scales, both groups of officers experienced increases over time; the largest absolute changes are for EPD officers. At Time 3 the sense of doing a "whole" job and the sense of having autonomy in doing that job are positively and significantly related to being in the EPD.

¹³ Scale is from Hackman and Oldham, 1974.

¹⁴ Scale is from Hackman and Oldham, 1974.

¹⁵ Scale is from Hackman and Oldham, 1974.

¹⁶ Scale is from Hackman and Oldham, 1974.

D.7. Attitudes Related to Community Policing and Problem-Solving

EPD officers were expected, over time, to become more supportive of the ideas of knowing neighborhoods and working on their problems, involving citizens in problem-solving, and including non-crime problems among their problem-solving concerns. It was expected that they would be less likely to believe in strict enforcement of all laws as they learned methods of solving problems that, at times, might include alternatives to law enforcement. Table 5-14 summarizes findings for scales developed to measure these types of attitudes.

TABLE 5-14

Attitudes Related to Community Policing and Problem-Solving
Direction, Magnitude and Significance of Change

Indicator	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
3-item scale ¹⁷ measuring disbelief in knowing neighborhood and working on its problems*	-1.9 (.001)*	-2.1 (.001)*	-.31 (.25)
5-item scale ¹⁸ measuring belief that citizens should be involved in problem-solving	+.0 (.80)	+.1 (.73)	.25 (.35)
4-item scale ¹⁹ measuring belief in non-crime problem-solving	+.1 (.65)	+.3 (.07)	.33 (.07)
3-item scale ²⁰ measuring belief in strict enforcement	-.1 (.80)	-.2 (.42)	-.21 (.32)

* Significance $\leq .05$

¹⁷ Scale is from Police Foundation, 1987.

¹⁸ Scale is from Police Foundation, 1988.

¹⁹ Scale is from Police Foundation, 1988.

²⁰ Scale is from Police Foundation, 1988.

Scores on all of these scales show some slight movement toward attitudes supportive of community policing. On the first, which measures belief in knowing a neighborhood and working on its problems, both groups of officers became significantly more likely over time to support these ideas. (Note that because of the way in which items were worded, the change is recorded as moving away from disbelief in these ideas.) Because change was significant for both groups, the Time 3 scores are not significantly associated with EPD membership. The other three scales show much less movement. Of particular interest is the second scale that was designed to measure belief in citizen involvement in problem-solving. Neither group of officers increased their belief in citizen involvement over the course of the project. However, at Time 1 both groups already agreed that citizen involvement was desirable. Any movement over time would have been from "agree" to "strongly agree." Similarly, at Time 1 both groups agreed with the importance of non-crime problem-solving and disagreed with the idea of strict enforcement of all laws.

D.8. Police Perception of Relationship with Community

It was expected that EPD officers would develop more positive attitudes about the quality of their relationship with the community. Their efforts at increased community contact and problem-solving should give them increased opportunities to associate with a more satisfied citizenry.

TABLE 5-15

Police Perception of Relationship with Community
Direction, Magnitude and Significance of Change

Indicator	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
5-item scale ²¹ measuring belief that patrol function develops community support	-.4 (.28)	+3.0 (.01)*	3.84 (.001)*
3-item scale ²² measuring police perception of citizen regard for police	+.0 (.10)	+.5 (.15)	.47 (.06)

* Significance $\leq .05$

²¹ Scale is from Police Foundation, 1987.

²² Scale is from Police Foundation, 1987.

At Time 3, EPD officers were significantly more likely than Non-EPD officers to believe that patrol work can foster good relationships with the community. The belief that citizens have a positive regard for the police was positively but not significantly associated with EPD membership at Time 3.

D.9. Police Views of Human Nature

Closer interaction with citizens was expected to lead to more positive views toward citizens on the part of EPD officers.

TABLE 5-16

Police View of Human Nature
Direction, Magnitude and Significance of Change

Indicator	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
3-item scale ²³ measuring belief that people are altruistic	+ .1 (.41)	+ .0 (.81)	.005 (.99)
3-item scale ²⁴ measuring belief that people are trustworthy	- .1 (.69)	+ .2 (.38)	.15 (.50)

There was no significant change on these scales over time. At all survey times, both groups of officers agreed that citizens are altruistic and that they are helpful.

²³ Scale is from Wrightsman, 1964.

²⁴ Scale is from Wrightsman, 1964.

E. Reactions to Change

E.1. Attitudes Toward Change

We did not have strong hypotheses about the reactions officers would have to the change process. The interest was in determining what impact the experience of change had on officers, since the reaction to change might be related to other outcomes of interest (e.g., job satisfaction). Three separate scales were used to measure how officers felt about the experience, whether they considered the change to be beneficial, and whether they would actively support change.

TABLE 5-17

Attitudes Toward Change
Direction, Magnitude and Significance of Change

Indicator	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
5-item scale ²⁵ measuring positive feeling for change	-.5 (.01)*	-.6 (.24)	.21 (.65)
6-item scale ²⁶ measuring belief in benefits of change	+.2 (.52)	+.8 (.08)	1.35 (.01)*
6-item scale ²⁷ measuring willingness to behaviorally support change	+.0 (.97)	+.3 (.56)	.45 (.38)

* Significance $\leq .05$

Both groups at all survey times were more positive than neutral in their willingness to say they liked change, that they believed in the benefits of change, and that they were willing to actively support change. But the change process was not painless. Both groups "liked" the change experience less over time, and the change among Non-EPD officers was

²⁵ Scale is from Dunham, et al., 1989.

²⁶ Scale is from Dunham, et al., 1989.

²⁷ Scale is from Dunham, et al., 1989.

significant. Over time, belief in the benefits of change was positively and significantly associated with membership in the EPD.

E.2. Attitudes Toward Decentralization

As with attitudes toward change, there were not specific hypotheses about attitudes toward decentralization. We simply wanted to know how officers felt about the new arrangement.

TABLE 5-18

Attitudes Toward Decentralization
Direction, Magnitude and Significance of Change

Indicator	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
3-item scale ²⁸ measuring belief in decentralization	-.7 (.007)*	+1.0 (.09)	2.22 (.001)*

* Significance $\leq .05$

Over time, Non-EPD officers became significantly less supportive of the idea of decentralization; EPD officers became more supportive, but the change for these officers was not significant. The result was that the Time 3 scores on this scale were positively and significantly associated with EPD membership.

F. **Summary and Discussion of Officer Attitudes**

We have presented data about changes in attitudes and reported behaviors of personnel in two ways: (1) we have examined within-group changes to assess the magnitude and patterns of change; and (2) we have used regression analysis to test the strength of the proposition that the observed changes are the result of the approaches to management and operations used in the Experimental Police District.

²⁸ Scale is from Madison Police Department, 1989.

The following table summarizes all of these findings within the two analytic frameworks. Under the heading of "Within-Group Analyses," we indicate in the first column whether both the Non-EPD and EPD groups experienced the same direction of change, thus indicating whether a change characterized the entire organization. These data are useful for developing a general sense about what was occurring in the department. The next two columns report the direction of change (+, -, or 0) experienced within the Non-EPD panel and the EPD panel and indicate whether the within-group change was statistically significant (yes or no). The fourth column summarizes the findings from the regression analysis, indicating whether the measure of association ("b") was significant. A significant "b" is evidence that the observed changes probably can be attributed to the efforts made in the Experimental Police District during the test period.

TABLE 5-19

Summary of Internal Changes

Outcome	Within-Group Analysis			Regression Analysis
	Did both groups change ?	Non-EPD Direct. and signif.	EPD Direct. and signif.	b Significant ?
Increased sense of participation in decision making	yes	+ yes	+ yes	yes
Increased sense of cooperation	yes	+ no	+ yes	no
Increased feedback from other officers	no	- no	+ yes	yes
Increased contacts between officers and detectives	no	- no	+ yes	yes
Increased officer participation in investigations	no	0 no	+ no	yes
More time available for proactive work	no	- no	0 no	no
Increased ease of time off	yes	no	no	yes
Increased training time	no	-	+	inap

Perceived availability of back-up support	yes	- yes	- no	yes
Satisfaction with physical working conditions	yes	+ yes	+ yes	yes
Satisfaction with kind of work on job	yes	+ no	+ yes	no
Satisfaction with Department as place to work	yes	+ no	+ yes	yes
Satisfaction with supervision	yes	+ no	+ yes	yes
More frequently consider leaving organization	yes	+ yes	+ no	no
Increased sense that job is significant	yes	+ yes	+ no	no
Increased sense of "wholeness" of task	yes	+ no	+ yes	yes
Increased sense of autonomy in job	yes	+ no	+ no	yes
Increased satisfaction with potential for personal growth	yes	+ no	+ yes	no
Increased belief in working on neighborhood problems	yes	+ yes	+ yes	no
Increased belief in citizen involvement in problem-solving	no	0 no	+ no	no
Increased belief in non-crime problem-solving	yes	+ no	+ no	no
Decreased belief in strict enforcement	yes	+ no	+ no	no
Increased belief that patrol function develops community support	no	- no	+ yes	yes
Increased sense that citizens have high regard for police	no	0 no	+ no	no
Increased belief that people are altruistic	no	+ no	0 no	no
Increased belief that people are trustworthy	no	- no	+ no	no
Increased "liking" for change	yes	- no	- no	no

Increased belief in benefits of change	yes	+ no	+ no	yes
Increased willingness to support change	no	0 no	+ no	no
Increased belief in decentralization	no	- no	+ no	yes

The overall picture suggested by the first column in the table is of the entire department moving generally toward goals of the change program. The remainder of the table indicates that the efforts made in the Experimental Police District are moving that part of the organization toward the desired outcomes to a greater extent or, perhaps, at a faster rate.

Among the thirty outcome measures, fourteen are significantly and positively related to being in the Experimental Police District (see Column 4). These include officers':

- Sense of participation in organizational decision-making
- Belief that feedback about performance is provided by peers and supervisors
- Reports of contacts between officers and detectives
- Reported participation of officers in investigative process
- Perceived ease of arranging for "comp" or vacation time
- Perceived availability of backup support
- Satisfaction with physical working conditions
- Satisfaction with the Department as a place to work
- Satisfaction with supervision
- Sense of doing a "whole" task
- Sense of autonomy in doing the job
- Belief that the patrol function can increase support from the community for the police

- Belief in the benefits of change
- Belief in organizational decentralization.

There is another outcome for which there is significant change within both the EPD and Non-EPD groups, which may explain the lack of significance on this scale for the measured program impact (Column 4). This variable is the belief in working on neighborhood problems.

For another three measures, there is significant change within the EPD and statistically insignificant change in the same direction for the Non-EPD group, which, again may have prevented the measure of program impact from reaching significance. These include officers'

- Sense of cooperation among organizational members
- Satisfaction with the kind of work the job entails
- Satisfaction with the potential for personal growth on the job.

In addition to the outcomes summarized in the table, there were three other variables that were measured in only the third wave of the survey. One consisted of twelve separate questions about the extent to which officers felt the twelve principles of Quality Leadership had been implemented. On each of these, EPD officers were significantly more likely ($p \leq .00$) to believe that the principles had been implemented.

At Time 3 officers were asked how successful they felt in their problem-solving attempts. There was no difference between EPD and Non-EPD officers, both groups of whom said they felt successful "some of the time."

When asked at Time 3 how much organizational support they believed they received for problem-solving, EPD officers felt they received more support than did Non-EPD officers but the difference was not significant.

Insofar as it can be determined from attitudinal questionnaires, the data reviewed in this chapter strongly suggest that substantial progress has been made in the Madison Police Department, and especially in the

Experimental Police District, toward the implementation of Quality Leadership.

The attitudes toward management and working conditions (the internal aspects of the job) changed more dramatically than did attitudes toward community involvement and the nature of the role. Nevertheless, there was a pattern of change within the EPD toward greater belief in community policing and problem-oriented policing. The apparently greater strength of the internal changes suggests support for the two-stage model of change in Madison which calls for creating greater quality on the inside of the organization before it is manifested on the outside .

There is no way of knowing to what extent these attitudinal changes are dependent on the personal management styles of the two managers of the EPD; it is possible that had they worked elsewhere in the Department without making a conscious effort to develop the principles of Quality Leadership, the personnel who worked with them would have exhibited similar attitudinal changes. The fact that their contributions to the change process cannot be teased out is simply one of the limitations of a study of one management team in one site. While the EPD captain and lieutenant may have been "natural" choices for the EPD management positions, there is anecdotal evidence as well as evidence from attitude change elsewhere in the Department to suggest that other MPD managers are developing a style of management similar to that implemented in the EPD; change, therefore, is not dependent on only the personal approaches of the EPD managers.

Although the EPD managers were clearly instrumental in bringing about changes in the EPD, another factor appears also to have played a major role; that is the size and configuration of the EPD workplace. Although everyone working in the EPD would have preferred slightly more spacious surroundings, the small space made interaction among officers, between officers and detectives, and between officers and managers unavoidable. So did the layout of the space which made it nearly impossible for any work unit to become isolated from another. Detectives passed through the briefing room to get from the parking lot to their offices and they came into the briefing room whenever they wanted coffee or to use the computer or the fax machine. The sergeants' offices and the captain's and lieutenant's offices opened into the briefing room and were on either side of it; they all crossed the briefing room in order to interact. The briefing room was both the social area and the space in which reports were completed, citizens were contacted by phone, computer work was done. The multiple purposes of the room and its central location in the space made it easier than not for everyone to know what anyone else was

doing. Even if miraculously large amounts of funding were available to build decentralized stations, careful consideration should be given to the design of the buildings so that the flow of traffic, the integration of functions and space, and the shared use of mechanical facilities would contribute to the sense of close interaction and "teamness" such as characterized the EPD.

VI. EXTERNAL EFFECTS: CONSEQUENCES OF THE CHANGE PROCESS FOR CITIZENS

The data presented in this section are developed from the surveys of citizens conducted in 1988 and again in 1990. The same persons (a panel) were surveyed at both times; the number of respondents in the EPD service area is 339 and the number of the Non-EPD areas (the rest of the city) is 388. For each outcome discussed below, the number of respondents will vary by question or scale. The regression analysis controlled for eighteen demographic and background variables (see Chapter III), in addition to area of residency and the score on the pre-test survey. A detailed presentation of these data is available in the technical report for this study (Wycoff and Skogan, 1993).

Like the tables in Chapter V, the tables in this chapter report two types of data. The first two columns of each table (headed "NON-EPD" and "EPD") report data for within-group analyses. Each cell in a column shows the direction and magnitude of change over time for that one group of citizens. For example, in Table 6-1, the first cell in the column labeled "NON-EPD" reports that 3% more respondents living in the Non-EPD service area reported seeing an officer in the previous 24 hours at the time of the second survey than at the time of the first one. Below this figure, the one in parentheses (.09) indicates that this change was not significant. The next cell in the row reports that among EPD area respondents, 9% more reported recent sighting of an officer in 1990 than had in 1988. The figure in parentheses (.01) indicates that this change over time was significant for this group of respondents. The data in the third column report that, for the whole group of respondents, the likelihood at Time 2 of reporting recent sighting of an officer was not significantly (.62) related to residency in the EPD area.

A. Perceived Police Presence

As officers became more involved with the community and participated in problem-solving activities, it was expected that residents in the EPD area would have an increased sense of police presence. The following table reports data about a number of different activities citizens might have seen police performing in their areas.

TABLE 6-1

Perceived Police Presence Direction, Magnitude and Significance of Change

Indicator: Respondent Saw Officer	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
In area in past 24 hours	+3% (.09)	+9% (.01)*	.02 (.62)
Driving through area in past week	+6% (.04)*	+7% (.02)*	.05 (.12)
Walking on patrol in past week	±0% (.71)	±0% (.72)	.03 (.01)*
Issuing traffic ticket in past week	+8% (.01)*	+2% (.41)	- .09 (.01)*
Checking an alley in past week	-1% (.84)	-2% (.42)	.08 (.02)*
Having friendly chat with neighborhood people in past week	+4% (.02)*	+4% (.01)*	.02 (.36)
Walking patrol in shopping area in past year	+6% (.02)*	+8% (.01)*	.02 (.48)

* Significance $\leq .05$

Citizens' sense of police presence increased throughout the City during the project period. In both the Non-EPD and the EPD areas, there were four activities for which citizens reported significantly more sightings between the first and second surveys. At Time 2, reports of seeing an officer walking on patrol or checking an alley were slightly positively and significantly associated with living in the EPD service area. Reports of

seeing an officer issuing a traffic ticket were slightly negatively and significantly related with living in the EPD area.

B. Frequency of Police-Citizen Contacts

Living in the EPD area also was expected to be associated with the number of contacts citizens have with police. The following table summarizes data about a number of different types of informal contacts citizens might have reported having with police.

TABLE 6-2
Frequency of Informal Contacts
Direction, Magnitude and Significance of Change

Indicator	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
Police came to door to ask about neighborhood problems or provide information	-1% (.39)	-3% (.27)	.01 (.67)
Officer gave citizen a business card	+1% (.47)	-3% (.31)	.004 (.98)
Knew of community meeting to discuss area problems	+4% (.100)	+9% (.01)*	.11 (.002)*
Attended meeting at which officer was present	±0% (.76)	+1% (.73)	.04 (.02)*
Attended area social event with officer present	+2% (.08)	+3% (.11)	.005 (.78)

Respondents living in the EPD area were significantly more likely to report knowing about community meetings and to have attended a meeting at which an officer was present.

The next table summarizes data about formal contacts with police that were initiated either by citizens or by officers. It was not necessarily expected that citizens in the EPD area would have more formal contacts with officers. If they did, it could be as the result of increased willingness to report problems or as a result of officers working more proactively in an area for which they felt responsible. Questions about formal contacts were asked primarily for purposes of documentation.

TABLE 6-3

Frequency of Formal Contacts
Direction, Magnitude and Significance of Change

Indicator	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
Citizen Initiated Contacts			
Reported crime to police	+2% (.40)	±0% (.92)	.02 (.51)
Reported traffic or medical problem	+5% (.04)*	+1% (.52)	-.06 (.04)*
Reported suspicious person	±0% (.99)	+3% (.22)	.02 (.28)
Reported suspicious noise	-1% (.42)	±0% (.33)	.03 (.03)*
Reported other event that might lead to crime	-1% (.33)	-1% (.33)	.04 (.05)*
Reported neighborhood problems or concerns	-2% (.38)	-2% (.43)	.03 (.27)
Reported other problem	±0% (.89)	-2% (.36)	-.01 (.91)
Asked police for other information	-1% (.59)	-6% (.03)*	-.03 (.30)
Gave information to police	+1% (.59)	+2% (.51)	.03 (.29)
Police Initiated Contacts			
Received parking ticket	-6% (.02)*	-4% (.16)	.05 (.10)
In vehicle stopped by police	-1% (.59)	+2% (.38)	.01 (.61)
Stopped while walking	±0% (.32)	±0% (.56)	.01 (.20)

* Significance ≤ .05.

While there are two significant relationships in this table, we do not see any pattern that is readily interpretable, except that there is no apparent difference in the likelihood of having a formal contact with police as determined by area of residence.

The next table reports citizens' feelings about the amount of contact they experienced with police in their area.

TABLE 6-4

Evaluation of Frequency of Police Contacts
Direction, Magnitude and Significance of Change

Indicator	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
Percentage of citizens stating that lack of police contact with residents was a "somewhat big" or "big" problem	10% (.02)*	-1% (.94)	-.06 (.16)

* Significance $\leq .05$.

Over time respondents in the Non-EPD area were significantly more likely to say that lack of contact with police was a problem. However, the scores at Time 2 were not related significantly to living in the EPD area.

C. Quality of Police-Citizen Contacts

C.1. Knowing an Officer's Name

It was believed that knowing the name of an officer who worked the area would be an indication of a better quality of citizen-police contact than the mere sighting of an officer.

TABLE 6-5

Knowledge of Officers' Names
Direction, Magnitude and Significance of Change

Indicator	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
Percentage of residents who report knowing the name of an officer who works in their area	$\pm 0\%$ (1.00)	+2% (.30)	.001 (.94)

There was no significant difference between EPD and Non-EPD respondents in the likelihood of knowing an officer's name.

C.2. Satisfaction With Contacts

Quality of actual contacts was assessed by questions about officers' behavior during formal contacts. These data are summarized below are for contacts that were initiated by citizens.

TABLE 6-6

Descriptions of Police Responses to Citizen-Initiated Contacts
Direction, Magnitude and Significance of Change

Indicator: Respondents report that during their most recent contact, the police:	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
...paid careful attention to what respondent had to say	$\pm 0\%$ (.95)	-6% (.06)	Inap.
...explained whatever action they would take	$+3\%$ (.52)	$\pm 0\%$ (.63)	Inap.
...were very helpful	-6% (.72)	-6% (.39)	Inap.
...were very polite	$+2\%$ (.91)	$\pm 0\%$ (.93)	Inap.

Inap = regression analyses were not run since the Time 1 and Time 2 groups of respondents were not the same people, thus making it impossible to control for Time 1 scores on the variable.

Citizens were not more likely to report more "sociable" behavior on the part of EPD officers at Time 2. In fact, although the changes were not statistically significant, citizens said that, at Time 2, EPD officers were less likely to pay careful attention to them and less likely to be "very helpful" than they were at Time 1. We cannot know whether this change is real or whether, if it is, it is due to changes in behavior of officers or due to a change in the types of calls to which officers were responding between Time 1 and Time 2. In any case, this was not the expected outcome.

Table 6-7 summarizes citizens' overall level of satisfaction with the contacts they had initiated.

TABLE 6-7

Satisfaction With Self-Initiated Contacts
Direction, Magnitude and Significance of Change

Indicator	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
Mean level of satisfaction with most recent self-initiated contact with police	± 0 (.76)	$-.2$ (.19)	Inap.

These data echo those of the previous table; citizens were slightly, if insignificantly, less satisfied with the behavior of EPD officers at Time 2 than at Time 1.

Table 6-8 summarizes citizens' observations about officer behavior during contacts initiated by officers.

TABLE 6-8

Descriptions of Police Responses to Officer-Initiated Contacts
Direction, Magnitude and Significance of Change

Indicator: Respondents report that during their most recent contact, the police:	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
...paid careful attention to what respondent had to say	-13% (.17)	+8% (.41)	Inap.
...explained whatever action they would take	-8% (.41)	+11% (.29)	Inap.
...were very helpful	-18% (.16)	+25% (.01)*	Inap.
...were very polite	-6% (.85)	+5% (.18)	Inap.

* Significance $\leq .05$

We see a very different picture for contacts initiated by police. Behavior appears to have been deteriorating in the Non-EPD areas and improving in the EPD area. We do not know what is happening here. One possibility is that the EPD officers who were inclined toward community policing and problem-solving policing were making a number of contacts that were deliberately and proactively designed to provide better service. While doing this, they may have been leaving more of the routine citizen-initiated calls to colleagues who had less interest in being proactively involved in community policing. Even if this was the case, it does not account for the pattern of deterioration in the Non-EPD areas.

In a separate section of the questionnaire, citizens were asked for their over-all opinion of police service, independent of specific contacts. Table 6-9 summarizes responses to these questions.

TABLE 6-9

Ratings of Police Style
Direction, Magnitude and Significance of Change

Indicator: Respondents say neighborhood police are "very"...	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
Polite	+4% (.11)	-5% (.06)	-.01 (.84)
Concerned	+4% (.11)	-3% (.71)	-.06 (.17)
Helpful	-6% (.32)	-4% (.11)	-.01 (.90)
Fair	-8% (.06)	-1% (.99)	.04 (.38)

Although none of the differences is significant over time, we see the same pattern of deteriorating opinions here as we did in the table for contacts initiated by citizens. These changes may not be "real" since they are not significant. They may be an artifact of the surveys having been administered in person at Time 1 and by telephone at Time 2. They may be real. They may be related to the increasing call load in Madison or to any number of other factors that we are not in a position to identify. We can only indicate here that this is a pattern to which the Department needs to be sensitive at this time.

D. Problem-Solving

D.1. Estimate of Problems

At both survey times respondents were asked to estimate the magnitude of various problems in their neighborhoods. Table 6-10 reports increases or decreases in the percentages of respondents, by area, who considered each of the problems listed to be either a "somewhat big" or "big" problem. The third column indicates whether the difference in perceptions of problems at Time 2 was related significantly to the area of residence of the respondent.

TABLE 6-10

Perceptions of Problems
Direction, Magnitude and Significance of Change

Indicator	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
Auto theft	+3% (.08)	-1% (.51)	.01 (.61)
Robbery/attack	+7% (.01)*	-7% (.01)*	-.08 (.05)*
Park maintenance	+6% (.68)	+1% (.63)	.009 (.98)
Drug use/sale (adults)	±0 (.68)	+6% (.22)	.11 (.005)*
Loud parties	-3% (.44)	-3% (.25)	.06 (.11)
Disturbance around schools	+6% (.02)*	+3% (.19)	-.07 (.14)
Drug use/sales (juveniles)	-2% (.35)	+6% (.08)	.12 (.004)*
Drinking/gambling in parks	+8% (.01)*	+5% (.32)	-.001 (.97)
Drunk driving	+4% (.13)	+2% (.33)	-.04 (.39)
Thefts from outside house	-4% (.38)	-5% (.25)	.05 (.28)
Ignoring parking rules	-4% (.06)	+1% (.67)	.17 (.001)*
Snow removal	+1% (.79)	-9% (.01)*	-.07 (.14)
Residential burglary	+5% (.01)*	-7% (.01)*	-.05 (.30)
Pot holes/street repairs	+2% (.40)	-2% (.43)	-.05 (.28)
Speeding/careless driving	±0% (.04)*	+8% (.01)*	.06 (.14)

* Significance $\leq .05$.

The notable within-group changes in this table concern the significant reductions in the EPD area in the extent to which respondents see robbery and burglary as big problems. At Time 2, the scores for concern about robbery are significantly and negatively related to residency in the EPD area. The relationship for burglary does not achieve statistical significance. At the same time, EPD residents say that drug use and sales by adults and juveniles have become bigger problems, as has the violation of parking rules. These outcomes may be related to some marked demographic changes that were occurring in the EPD area during the course of this project. People involved in drug sale and use were moving into the area in significant numbers, leading eventually to a police response (Operation Blue Blanket) that would not be reflected in these data.

D.2. Evaluation of Problem-Solving Efforts

Citizens were asked how well they thought the police were doing in handling problems in the neighborhood. The next table summarizes responses to three related questions.

TABLE 6-11

Evaluation of General Problem-Solving Efforts
Direction, Magnitude and Significance of Change

Indicator: How good a job are the police doing:	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
working with residents to solve local problems?	-.1% (.14)	+.1% (.13)	.18 (.007)*
dealing with problems of concern in neighborhood?	-.1% (.23)	.1% (.13)	.07 (.22)
at spending enough time on important problems?	±0% (.10)	+.2% (.00)*	.09 (.04)*

* Significance $\leq .05$

At Time 2, tendencies of respondents to say that police were doing a good job of working with citizens to solve problems and that they were working on important problems were positively and significantly related to residency in the EPD.

Citizens also were asked to rate police handling of specific problems (Table 6-12).

TABLE 6-12

Evaluation of Specific Problem-Solving Efforts
Direction, Magnitude and Significance of Change

Indicator: Citizens' Ratings of Police Handling of Problems	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
Preventing Crime	-5% (.61)	+5% (.03)*	.06 (.30)
Keeping order	+1% (.46)	+2% (.09)	.12 (.07)
Enforcing parking rules	-1% (.46)	+2% (.09)	.12 (.07)
Controlling speeding and careless driving	+3% (.31)	-1% (.46)	.06 (.39)
Controlling drunk driving	-5% (.50)	-4% (.07)	.02 (.77)
Helping victims	-3% (.53)	+5% (.36)	.05 (.50)

* Significance $\leq .05$

At Time 2 significantly more EPD respondents thought their police were doing a good job of preventing crime than did at Time 1. The difference between responses of Non-EPD and EPD residents at Time 2 was not statistically significant, nor were any of the differences for responses to other kinds of problems.

E. Perceptions of Neighborhood Conditions

All respondents were asked a number of questions about the South Madison area, the area in which the EPD is located, and an area that has, for years, been considered one of the less safe parts of town. The next table summarizes citizen perceptions about the quality of life and safety in South Madison.

TABLE 6-13

Assessments of South Madison
Direction, Magnitude and Significance of Change

Indicator: Citizens' Assessments of South Madison	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
Area as a place to live	$\pm 0\%$ (.94)	-.1 (.27)	.07 (.19)
Disorder as a problem	$\pm 0\%$ (.27)	+.1% (.23)	-.10 (.04)*
Crime as a problem	+.1% (.03)*	$\pm 0\%$ (.88)	-.15 (.001)*
Area includes place where I would fear to go alone	$\pm 0\%$ (.21)	$\pm 0\%$ (.88)	-.05 (.07)
Sense of safety alone in area at night	$\pm 0\%$ (.92)	$\pm 0\%$ (.76)	.11 (.14)

* Significance $\leq .05$

Changes over time were small, but at Time 2 the perceptions that crime and disorder are big problems in South Madison were significantly and negatively related to living in the EPD service area. Residents served by the EPD were significantly less likely than Non-EPD respondents to feel that disorder and crime were serious problems in their area.

F. Levels of Fear and Worry

The reduction of levels of fear and worry is a long term goal of Madison's change efforts. It is expected that citizens in the EPD area will become less concerned about crime as police become more effective at solving and preventing crimes in the area, as citizens learn more about preventing crimes, and as citizens become more convinced that police are working hard to address these problems.

F.1. Fear of Personal Victimization

Respondents were asked several questions, summarized in Table 6-14, about their levels of fear and worry with respect to their personal safety.

TABLE 6-14
Fear of Personal Victimization
Direction, Magnitude and Significance of Change

Indicator: Respondents say	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
...they are somewhat or very unsafe outside at night	-3% (.42)	-3% (.05)*	-.004 (.94)
...there is a place where they fear being alone at night	-3% (.24)	±0% (.83)	.06 (.09)
...they are somewhat worried about being robbed	-1% (.77)	-2% (.53)	-.02 (.68)
...they are somewhat or very worried about attack	±0% (.92)	-2% (.60)	-.00 (.91)
...worry about crime somewhat or very often prevents desired activity	-2% (.70)	-1% (.50)	-.02 (.63)

* Significance $\leq .05$

This table indicates that, over time, all Madison residents became slightly less worried over time about crime. The relationship at Time 2 between lower levels of worry and residency in the EPD is not statistically significant.

F.2. Worry About Property Crime

Respondents also were asked how worried they were that various kinds of property crime might occur.

TABLE 6-15

Worry About Property Crime Direction, Magnitude and Significance of Change

Indicator: Respondents say they are somewhat or very worried about:	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
...burglary when no one is home	+2% (.06)	+2% (.93)	-.03 (.52)
...theft outside at night	+3% (.15)	-6% (.02)*	-.01 (.88)
...vandalism of house	+2% (.30)	+1% (.98)	-.06 (.18)

* Significance $\leq .05$

The pattern for worry about property crime is somewhat different, especially with respect to worry about theft outside at night, which decreases significantly in the EPD area over time. In general, the tendency at Time 2 to worry about property crime is negatively but insignificantly related to residency in the EPD.

G. Actual Victimization

G.1. Personal Experience of Victimization

Respondents were asked whether during the previous year they had experienced a robbery in their neighborhood, or burglary or vandalism to their home.

TABLE 6-16

Victimization During Previous Year
Direction, Magnitude and Significance of Change

Indicator: Type of Victimization	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
Robbery in area	±.0% (.99)	-.6% (.42)	.004 (.38)
Burglary	+2.8% (.10)	±0% (.99)	.05 (.04)*
Vandalism	-.6% (.76)	-1.7% (.37)	.004 (.85)

* Significance $\leq .05$

The changes in reported victimization are slight with the exception of burglary which increases by 3 percent in the Non-EPD area while remaining steady in the EPD area. The increase in the Non-EPD area is not statistically significant and, at Time 2, reports of burglary are significantly related to living in the EPD area. In other words, despite the fact that the burglary problem may be getting no worse in the EPD area, a resident is still more likely to experience a burglary than is the typical resident in the Non-EPD areas.

G.2. Knowledge of Victimization of Other

Respondents also were asked whether they knew anyone who had experienced a residential burglary or attempted burglary during the previous year.

TABLE 6-17

Knowledge of Burglary Victim
Direction, Magnitude and Significance of Change

Indicator	NON-EPD Size and probability of change	EPD Size and probability of change	b Significance
Knowledge of burglary victim	+.01 (.56)	-.08 (.00)*	-.02 (.35)

* Significance $\leq .05$

At Time 2 EPD respondents were slightly but significantly less likely to report knowing someone who had been burglarized. The difference between EPD and Non-EPD respondents at Time 2 was not significant.

H. **Summary and Discussion of Citizen Attitudes**

As with the officer data, the citizen data have been presented so that it is possible to examine within-group changes for the purpose of detecting magnitudes and patterns of change while also being able to see whether observed changes are related significantly to the EPD experience.

The following table summarizes the findings about the external effects of the EPD approach. Under the heading of "Within-Group Analyses," we indicate in the first column whether respondents in both the Non-EPD and EPD areas experienced the same direction of change, thus indicating whether a change characterized the entire community. The next two columns report the direction of change (+, -, or 0) experienced within the panels of Non-EPD and EPD respondents and indicate whether the within-group change was statistically significant (yes or no). The fourth column summarizes the findings from the regression analysis, indicating whether the measure of association ("b") was significant. A significant "b" is evidence that the observed changes probably can be attributed to living

within the area served by Experimental Police District officers during the test period.

Because it is the intent of this section to provide a summary, we will not attempt to recap each of the 75 separate outcome variables reviewed in the preceding section of the report. Instead, we have selected those outcomes which we feel are the most telling indicators of improved community relations and the implementation of community-oriented and problem-oriented policing.

TABLE 6-18

Summary of External Changes

	Within-Group Analysis			Regression Analysis
Outcome	Did both groups change ?	Non-EPD Direct. and signif.	EPD Direct. and signif.	b Significant ?
Seeing officer in area, past 24 hours	yes	+ no	+ yes	no
Seeing officer walking patrol, past week	no	0 no	0 no	yes
Seeing officer in friendly chat with neighborhood people, past week	yes	+ yes	+ yes	no
Police came to door to ask about problems	yes	- no	- no	no
Citizen attended meeting at which officer was present	no	0 no	+ no	yes
Lack of police contact a problem	no	+ yes	- no	no
Know name of officer	no	0 no	+ no	no
Satisfaction with most recent self-initiated contact	no	0 no	- no	inap
Officer attentive in proactive contact	no	- no	+ no	inap
Officer helpful in proactive contact	no	- no	+ yes	inap
Police work with citizens to solve problems	no	- no	+ no	yes

Police spend enough time on right problems	no	0 no	+ yes	yes
Police are good at preventing crime	no	— no	+ yes	no
Police are good at keeping order	no	+ no	0 no	no
Police are good at controlling speeding and careless driving	no	+ no	— no	no
Police are good at helping victims	no	— no	+ no	no
Robbery/attack a problem	no	+ yes	— yes	yes
Adult drug use/sales a problem	no	0 no	+ no	yes
Residential burglary a problem	no	+ yes	— yes	no
Speeding and careless driving a problem	no	0 yes	+ yes	no
Belief that police are polite	yes	— no	— no	no
South Madison is good place to live	no	0 no	— no	no
Crime is a problem in South Madison	no	+ yes	o no	yes
Feel unsafe in neighborhood at night	yes	— no	— yes	no
Worry about being robbed	yes	— no	— no	no
Worry about burglary	yes	+ no	+ no	no
Worry about theft outside at night	no	+ no	- yes	no
Have experienced robbery	no	0 no	— no	no
Have experienced burglary	no	+ no	0 no	yes
Know burglary victim	no	+ no	— yes	no

There is evidence from several variables treated in this chapter as "external outcomes" that the EPD is having a positive impact on the part of the City that it serves. Among the thirty outcomes summarized in the preceding table, there are seven for which a significant regression coefficient (Column 4) suggests that improved attitudes or conditions may be attributable to the EPD efforts. These include:

- Perception of increased police presence (officer walking in neighborhood)
- Reported attendance at meetings at which police are present
- Belief that police are working with citizens to solve neighborhood problems
- Belief that police are spending the right amount of time on problems of concern to area residents
- Decreased belief that robbery is a big problem
- Feeling that crime in South Madison is less of problem than other citizens consider it to be.

Undesirable outcomes associated significantly with residing in the EPD service area are:

- Increased belief that drug use and sales are big problems in the area, and
- Increased belief that the violation of parking rules is a big problem.

There were other changes within the EPD area which did not result in statistically significant differences between EPD and Non-EPD respondents in 1990. These changes might, therefore, be due to causes other than residency in the EPD area. They include:

- Increased likelihood of seeing an officer having a friendly conversation with a resident
- Increased belief that police are helpful during proactive contacts

- Increased feeling that police are doing a good job preventing crime
- Decreased belief that burglary in the area is a big problem
- Decreased sense of being unsafe in the neighborhood at night
- Decreased concern about theft occurring outside the house, and
- Decreased likelihood of knowing a burglary victim residing in the area.

Whether one considers only the outcomes for which there was a significant regression coefficient or also considers the ones for which there was significant within-group change over time, there is evidence in the citizen survey data that the effects of Quality Leadership are extending beyond the police organization into the community it serves. Quality Leadership, with its inherent support for community policing, can have positive and important benefits for the community.

It is the case, however that the external benefits are not as numerous as the internal benefits that were measured (Chapter V), and there are not as many that are as clearly attributable to community policing as the Department had hoped. We list below conditions that may limit our ability to find more evidence of the benefits of the EPD experiment for the community.

These conditions or constraints include:

- the possible inadequacy of measures of impact. More development and testing of appropriate outcome measures specifically designed for community-oriented and problem-oriented policing needs to be done.
- the fact that community policing began to emerge late in the test period. The two-stage process of change in which the EPD was involved required more time and energy for the first stage (internal change) than had been anticipated; the second stage (improved external service) was not sufficiently developed at the time of measurement to show as much impact as had been expected when the evaluation was designed.

- too many changes were occurring at once. Ironically, the process of developing Quality Leadership, a goal of which is better service for the customer, may have interfered initially with efforts to create a new external orientation.
- attitudes of the EPD managers toward research. They knew what could be done to produce positive outcomes in the citizen surveys (e.g., door-to-door contacts just prior to the second survey) but deliberately chose not to induce an artificial effect, preferring the long-term benefits of changes that grew naturally out of the process of "permitted" or "facilitated" change.
- characteristics of the personnel who were the first members of the EPD. Because of seniority rules, those most interested in community-policing and problem-solving policing worked the late shift where they were least able to work on problems with the community.
- citizen satisfaction levels already so high that efforts to raise them will have to be dramatic before changes will register as statistically significant.
- the EPD was not changing in isolation of the rest of the Department. The entire organization was being affected by the transition to Quality Leadership and was exposed to the ideas of community policing and problem-oriented policing. This made it difficult to find significant differences between the EPD and Non-EPD areas of the City.

The impacts of these various conditions cannot be measured and cannot be teased apart. They can only be noted as possible alternative explanations for findings or the lack of significant findings.

VII. CONCLUSIONS AND DISCUSSION

Surely the most dramatic finding in this project is that it is possible to "bend granite" (Guyot, 1979); it is possible to change a traditional, control-oriented police organization into one in which employees become members of work teams and participants in decision-making processes. The Madison Police Department has changed the inside, with apparent benefits as reflected by improved attitudes, for employees. This research suggests that associated with these internal changes are external benefits for citizens, including indications of reductions in crime and reduced levels of concern about crime.

Are these relationships causal, as the Madison Model (Exhibit 2-1) suggests? Or do they occur together in these data because they result from a variety of efforts, all of which were undertaken in the Experimental Police District at the same time? It is impossible to say. What can be said is that it is possible to implement participatory management in a police department, and that doing so is very likely to produce more satisfied workers.

Is the Quality Leadership approach a necessary condition for community-oriented and problem-oriented policing? This research cannot say with certainty that it is. Many managers and employees in Madison believe that it is, as do some theorists who write about these approaches to policing. Employees who are treated as internal customers, the logic goes, are better able to understand what it means to treat citizens as external customers. Employees whose input is valued learn to value the input of others (e.g., citizens). Employees who are invited to work in team relationships to solve internal problems learn, in this way, to work with citizens in team relationships to solve problems. People closest to the problems (officers and citizens) have the most information about those problems, and their input is critical for problem definition and resolution. Finally, students of change have long argued that organizational change is more readily accepted by employees who participate in the process of creating it. All of these arguments appear to have been supported in the Experimental Police District. If our data cannot prove a necessary relationship between the management style of Quality Leadership and the new approaches to policing, they do indicate that they were highly compatible in the Experimental Police District.

The data do indicate that officers' attitudes can shift from more traditional views of policing to ones that are more in line with police-

community involvement in problem identification and resolution, even among officers with many years of service.

The data cannot prove that decentralization is a necessary condition for community-oriented policing. Madison Police Department managers now tend to agree that it is. As observers, we believe that decentralization made an important contribution to the process of creating the new management style. It also contributed to the development of team spirit and processes, conditions that should facilitate problem-solving policing. Officers who work in the EPD believe the decentralized station also enhances relationships with the public; they report increased numbers of contacts with citizens in the community and an ever-increasing number of citizens who come to the station for assistance.

The scale on which decentralization occurred was important. The small physical space of the EPD station and its floor plan made close interaction among officers, detectives, supervisors and managers unavoidable.

Our data also cannot prove that changing one part of the organization before proceeding with department-wide implementation is the best way to move toward decentralization and community policing. However, after more than three years of experience with this approach to change, the managers of the Madison Police Department—all of whom have experienced the various costs of changing in this way—tend to agree that this way is the right approach. They were able to learn lessons as they developed their model that could be applied without disrupting the entire organization.

These include lessons about:

- the need to establish reliable communication systems linking the decentralized unit to the rest of the organization
- size of support systems (both human and physical/mechanical) needed for decentralization
- the need to work out a system of "exchange" so centralized and decentralized officers could equitably cover for each other at times of personnel shortages
- the dynamics of small group management

- the role of leadership in a participatory style of management
- the degree of participation appropriate to each type of organizational decision.

Further, as the data indicate, special attention to one part of the organization did not block change elsewhere. Quality Leadership is being implemented throughout the Department, if at a somewhat slower rate than in the Experimental Police District.

At the end, it must be said again that the changes that have occurred in the Madison Police Department did not begin within the time frame of this study. This study is a window into one relatively brief period in the much lengthier process of change. This research project did not begin at The Beginning, and we have no idea when to expect the full impact of the changes that are sought. The changes that are documented in this report have occurred and are occurring in a context of organizational history and community culture that may determine, to some unmeasured degree, the ability to implement the changes and the magnitude of the impact of the changes. The Department began the change discussed in this report after nearly fifteen years of ongoing experimentation with new ideas and a commitment to seeking better ways to conduct policing. Although the move to Quality Policing is the largest change to be undertaken to date, change is not a stranger in this organization. Also, during this same period, continual efforts have been made to recruit educated officers whose backgrounds, life experiences and attitudes should increase their ability to relate to a diverse community and their ability to assess the need for organizational change.

Although Madison as a City is beginning to cope with an increasing number of social problems (poverty, homelessness, drug use) and associated crime, the City and the police are not yet overwhelmed by problems. There is not the sense of "where do you begin?" that one might find in some larger, older cities or the sense of "how can you begin?" that haunts financially depleted cities. Madison has not yet (1992) experienced cut-back budgeting and citizens are reportedly willing to pay the projected costs of decentralization.

Many police executives may sigh wistfully at this point and assume Madison is too good to be true—too atypical to yield general lessons. It seems to us that too much is made of the uniqueness of Madison. It is a pleasant city. It certainly is not one of the hardship cases among American cities (just as most cities its size are not). It is a community in which there

is a long-standing concern for quality of life. There was a mayor who was staunchly supportive of the Quality Leadership approach. But Madison is not unique. Austin, Texas and Portland, Oregon come immediately to mind as having much in common with Madison, and there are many cities that share qualities of relative stability, low industrialization, the presence of a college or university, and political support for community policing. Add the elements of being midwestern and a state capital and having a relatively homogeneous population with growing minority communities, and you still will find a large number of similar cities. The exaggerated liberal reputation of the town may be based more on highly publicized activities on campus in the 1960s and 1970s than on the broader orientation of the citizenry. There are 125 cities in this country that are between 100,000 and 249,000 in population, and there are many more police departments the size of the MPD than the size of the departments in New York or Los Angeles, cities to which we pay considerable attention but which may not be the best models for the "average" police department.

We have a concern with the replicability of the Madison experience that has much more to do with whether other Departments are willing (and are able) to make a similar commitment to long-term (twenty years or more) change. The community culture in which the change is made will, of course, play a part, but it is much less a determinant factor in our opinion than is the commitment to a lengthy process that is guided by a vision and by strong leadership. To be fair, we should acknowledge again one way in which the Madison Department was different from most others. The Chief had tenure. There is no question that this factor—and all that it entails—greatly contributed to his ability to develop, guide and otherwise sustain a vision. While "tenure" may not be a politically viable option in most communities, a contract for the police chief is; almost unheard of a few years ago, it is increasingly likely that a police executive can negotiate for a contract or some form of supported longevity. The city administration that is serious about attempting to undertake this type of reorientation of policing has to be serious about supporting the police chief who will lead the effort. Such change requires a long term commitment, and both the city administrators and the police administrator must be committed. They must make this commitment clear to the police organization and to the broader community.

The Madison process of change should not be misunderstood as an employee movement that did not require a strong leader. Although the goal of the change is participatory management and information flow that moves from the bottom to the top of the organization, that is not how the change in Madison occurred. It was not a response to a demand from the

bottom. It was a response to the vision of a strong leader—a strong leader who had employment security.

While tenure gave the Chief an enviable advantage, other present day police leaders can create and promote a vision that directs an organization. It is happening in a number of departments. If change and improvement depended only on the endurance of the person who initiated a new direction, change would be a hopeless undertaking. In fact, we have seen a tremendous amount of change in American policing during the past twenty years, and for the most part it has been initiated by leaders who had to prepare others in the organization to accept and carry the torch when it had to be passed. The result has been progress by fits and starts in some agencies with the torch sometimes being passed more successfully from one agency to another than from one generation to the next within an organization. The ideas and the processes of change continue to develop and be shared and to enrich both the profession generally and individual organizations. So, while Madison may have had some special advantages, change in modern American policing has not been dependent on such advantages.

Even though many police executives may agree with this general premise, they still will have trouble foreseeing a day when their city budget will include physical decentralization. To them it is suggested that regardless whether physical decentralization is possible now or later, they will want to consider the benefits of a management style based on Quality Leadership principles. In Madison, decentralization has almost certainly facilitated the implementation of Quality Leadership and has enhanced its effects, but Quality Leadership is being practiced with positive consequences for employees in the five-sixths of the Department that remain physically centralized. If the theory that more satisfied employees become more productive is correct (which the data presented suggest), then Madison officers may work either harder or more efficiently as the quality of their work lives improves.

Whether centralized officers will be as likely to work differently (i.e., in closer consort with the community) remains to be seen. Until such time as further physical decentralization is approved for Madison, the Department is implementing an approach that has been termed "centralized decentralization" in which patrol captains have responsibility for parts of the City (essentially quadrants). While all personnel (except those assigned to the EPD) remain based in the central facility, those assigned to an area are encouraged to have a sense of responsibility for that area; to become familiar with its people, problems and resources; and to apply this knowledge to problem-solving. This approach has developed

since the termination of the current study and is not documented in this report. However, future reports from the Madison Department may provide information about a model that could be applicable for Departments that wish to implement community policing but cannot expect to achieve physical decentralization under current budgetary conditions.

VIII. RESEARCH RECOMMENDATIONS

We suggest that research attention be given to the following issues:

- efficient, inexpensive means of documenting police efforts to conduct community policing and problem-oriented policing. These are performance measures. These means of documentation must be independent of the currently popular labels for these approaches.
- outcome (impact) measures, both intermediate and long term, for community policing and problem-oriented policing.
- appropriate methodologies for the collection of outcome data. When the outcomes are citizen attitudes and perceptions, should these be measured in large scale surveys? Should there be special target populations? Are focus groups appropriate?
- the appropriate time frames within which it is reasonable to expect to measure various kinds of outcomes.
- the styles of management and the organizational structures being used in other departments that are attempting to reorient entire organizations to community policing and problem-oriented policing.
- Technological systems to support community and problem-oriented policing, especially systems for data collection, collation, and dissemination.
- whether there are identifiable characteristics of police officers that are associated with attitudinal support for, and performance of, community policing and problem-oriented policing.

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